# CITRUS COUNTY CENTRAL LANDFILL OPERATION PLAN

#### **Prepared for:**

Citrus County Solid Waste Management Department 230 W. Gulf to Lake Highway Lecanto, Florida 34461

### Prepared by:

Jones Edmunds & Associates, Inc.
730 NE Waldo Road
Gainesville, Florida 32641

Jones Edmunds Project No.: 03860-087-01

## **TABLE OF CONTENTS**

		Training and Certification of Operators and Spotters 2-701.500(1), FAC)	1
K.	.2	Landfill Operation Plan Procedures (Rule 62-701.500(2), FAC)	2
		Designating Responsible Operating and Maintenance Personnel 62-701.500(2)(a), FAC)	2
	K.2.B	Emergency Preparedness and Response (Rule 62-701.500(2)(b), FAC)	2
	K.2.C	Control/Inspection of Incoming Waste (Rule 62-701.500(2)(c), FAC)	3
	K.2.D	Weighing Incoming Wastes (Rule 62-701.500(2)(d), FAC)	5
	K.2.E	Vehicle Traffic Control and Unloading (Rule 62-701.500(2)(e), FAC)	5
	K.2.F	Method and Sequencing of Filling Wastes (Rule 62-701.500(2)(f), FAC)	5
	K.2.G	Waste Compaction and Application of Cover (Rule 62-701.500(2)(g), FAC)	7
		Operations of Gas, Leachate, and Stormwater Controls (Rule 62- 00(2)(h), FAC)	9
	K.2.I	Water Quality Monitoring (Rule 62-701.500(2)(i), FAC)	14
		Maintaining and Cleaning the Leachate Collection System 62-701.500(2)(j), FAC)	15
K.	.3	Operating Records (Rule 6-2701.500(3), FAC)	15
K.	4	Waste Records (Rule 62-701.500(4), FAC)	16
K.	.5	Access Control (Rule 62-701.500(5), FAC)	16
K.	6	Load Checking Program (Rule 62-701.500(6), FAC)	17
	K.6.A	Waste Inspection (Rule 62-701.500(6)(a), FAC)	17
	K.6.B	Hazardous Wastes and Handling Procedures (Rule 62-701.500(6)(b), FAC)	18
	K.6.C	Recording Inspection Results (Rule 62-701.500(6)(c), FAC)	18
K.	7	Waste Handling Requirements (Rule 6-2701.500(7), FAC)	19
		Waste Thickness and Compaction Frequencies 62-701.500(7)(a), FAC)	19
	K.7.B	First Layer of Waste (Rule 62-701.500(7)(b), FAC)	19
	K.7.C	Slopes of Working Face (Rule 62-701.500(7)(c), FAC)	19
	K.7.D	Width of Working Face (Rule 62-701.500(7)(d), FAC)	19
	K.7.E	Initial/Daily Cover (Rule 62-701.500(7)(e), FAC)	19
	K.7.F	Initial Cover Procedures (Rule 62-701.500(7)(f), FAC)	19
	K.7.G	Intermediate Cover (Rule 62-701.500(7)(g), FAC)	20
	K.7.H	Final Cover (Rule 62-701.500(7)(h), FAC)	20
		Scavenging and Salvaging Control (Rule 62-701.500(7)(i), FAC)	20

	K.7.J	Litter Policing Methods (Rule 62-701.500(7)(j), FAC)	20
	K.7.K	Erosion Control (Rule 62-701.500(7)(k), FAC)	20
K.	8	Leachate Management (Rule 62-701.500(8), FAC)	21
	K.8.A	Leachate Level Monitoring (Rule 62-701.500(8)(a), FAC)	22
		Operation and Maintenance of Leachate Collection System 62-701.500(8)(b), FAC)	22
		Leachate Handling (If Regulated as Hazardous Waste) 62-701.500(8)(b), FAC)	23
	K.8.D	Off-Site Treatment (Rule 62-701.500(8)(c), FAC)	23
	K.8.E	Contingency Plan for Managing Leachate (Rule 62-701.500(8)(e), FAC)	23
	K.8.F	Recording Leachate Quantities (Rule 62-701.500(8)(f), FAC)	23
	K.8.G	Recording Precipitation (Rule 62-701.500(8)(g), FAC)	24
	K.8.H	Inspection and Cleaning (Rule 62-101.500(8)(h), FAC)	24
	K.8.I	Leachate Storage Tanks	24
K.	9	Landfill Gas Monitoring (Rule 62-701.500(9), FAC)	26
	K.9.A	Background Information	26
	K.9.B	Landfill Areas	27
	K.9.C	Monitoring of On-Site Structures	28
	K.9.D	Gas Monitoring Procedures	29
	K.9.E	Reporting	31
	K.9.F	Routine Odor Control	31
	10 Rule 6	Stormwater Management System and Maintenance 2-701.500(10), FAC)	34
	K.10.	A Stormwater Best Management Practices	34
	K.10.	3 Stormwater Maintenance Procedures	34
	K.10.0	Surface Drainage Structures	34
K.	11	Equipment and Operation Features (Rule 62-701.500(11), FAC)	35
	K.11.	A Equipment (Rule 62-701.500(11)(a), FAC)	35
	K.11.	Reserve Equipment (Rule 62-701.500(11)(b), FAC)	35
	K.11.0	C Communication Equipment (Rule 62-701.500(11)(c), FAC)	35
	K.11.I	D Dust Control (Rule 62-701.500(11)(d), FAC)	35
		Fire Protection and Fire Fighting Capabilities 62-701.500(11)(e), FAC)	35
	K.11.F	Litter Control Devices (Rule 62-701.500(11)(f), FAC)	36
	K.11.0	G Signs (Rule 62-701.500(11)(g), FAC)	36

K.12 Road	ls (Rule 62-701.500(12), FAC)36	5	
K.12.A All-	Weather Access Road (Rule 62-701.500(12)(a), FAC)	5	
K.12.B Peri	imeter and Other On-Site Roads (Rule 62-701.500(12)(b), FAC)36	5	
K.13 Addit	tional Recordkeeping and Reporting (Rule 62-701.500(13), FAC)36	5	
K.13.A Peri	mit Application Documentation (Rule 62-701.500(13)(a), FAC)36	5	
K.13.B Mor	nitoring Information (Rule 62-701.500(13)(b), FAC)37	7	
K.13.C Remaining Life and Capacity Estimate (Rule 62-701.500(13)(c), FAC)			
K.13.D Arcl	hived Records (Rule 62-701.500(13)(d), FAC)	7	
LIST O	F FIGURES		
Figure 9-1	Monitoring Network32	2	
Figure 9-2	LFG Monitoring Probe Detail33	3	
APPEN	IDICES		
Appendix A	Emergency Incidents and Contingency Plan		
Appendix B	Citrus/Hernando Counties Interlocal Agreement		
Appendix C	Leachate Treatment Agreement		
Appendix D	Daily Operator Log		
Appendix E	Sample Load Checking Inspection Forms		
Appendix F	Maintenance Summary Form		
Appendix G	LFG Monitoring Form		

#### **EXECUTIVE SUMMARY**

This document provides a consolidated manual of operating procedures for the Citrus County Central Landfill (CCCL). The enclosed Operation Plan was prepared and organized in accordance with the Florida Department of Environmental Protection (FDEP), Rule 62-701, Florida Administrative Code (FAC), and Part K of FDEP's permit application Form 62-701.900(1) for solid waste management facilities. If a conflict occurs between the Operation Plan and the Rule, the Rule will prevail. This Operation Plan supersedes previous plans submitted.

The CCCL is owned by Citrus County and operated by the Citrus County Solid Waste Management Department. The facility is in Lecanto, Florida, at 230 W. Gulf to Lake Highway (State Road [SR] 44). The CCCL serves the residents and commercial businesses of the County and consists of an active Class I Landfill, closed landfills, a Citizens Service Area (CSA), hazardous waste drop-off center, scalehouse, and associated infrastructure necessary to operate the County's integrated solid waste management program. The CCCL includes three closed landfills west of the active landfill that the County maintains on property leased to the County by the Department of Forestry (DOF). Two of the closed landfills are unlined and predate Resource Conservation and Recovery Act (RCRA) Subtitle D liner requirements. The active Class I Landfill is lined and covers approximately 32 acres in Phases 1, 1A, 2, and 3. The Phase 4 landfill expansion will be an approximately 19.5-acre cell north of Phase 3. The active landfill began accepting waste in 1991. Landfilling currently occurs in Phases 2 and 3 of the active landfill; Phase 4 is projected to start accepting waste when constructed and opened (initially Phase 4A with Phase 4B built several years afterwards).

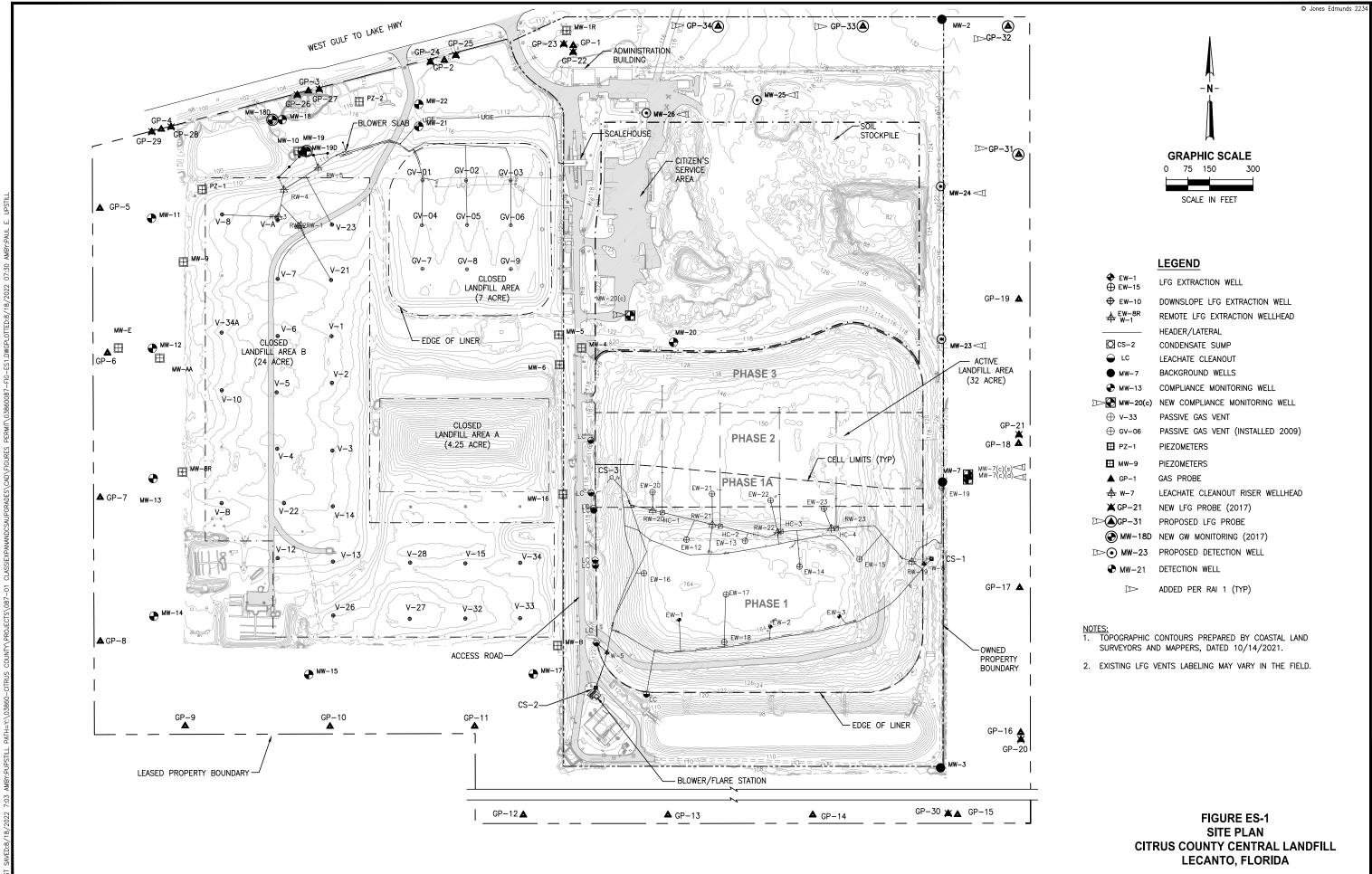
All waste arriving at the CCCL is weighed at the scalehouse. The scalehouse attendant directs vehicles carrying waste to the appropriate areas where the wastes are unloaded. The active landfill is accessed via central access roads. The CCCL is open Monday through Friday from 8:00 AM to 4:30 PM and on Saturdays from 8:00 AM to 2:30 PM.

The CSA provides drop-off areas for residents to dispose of items such as household garbage, waste tires, yard waste, recyclables (e.g., metals and fluorescent bulbs), electronic waste, metals, and used oils. Separate from the CSA, hazardous wastes are temporarily placed in the Hazardous Waste Collection and Storage Facility. The CSA will continue operation upon construction of Phase 4A but will be decommissioned and be demolished and relocated off-site upon construction of Phase 4B.

Leachate generated from the active landfill is pumped to the leachate storage tanks on the south side of the property and then transported via a force main to the Meadowcrest Wastewater Treatment Plant (WWTP).

Stormwater at the facility is managed by a combination of swales, perimeter ditches, and stormwater ponds. Stormwater run-off is directed away from open areas on the active face of the landfill by berms and swales along the side slopes of the landfill. The swales outside the disposal area divert stormwater into the perimeter ditches that are outside the lined berms and isolated from the leachate and solid waste. Stormwater run-off that contacts waste or mixes with leachate is treated as leachate.

Refer to Figure ES-1, Site Plan, Citrus County Central Landfill.



**JonesEdmunds** 

#### **OPERATION PLAN**

The following Operation Plan was prepared and organized for the CCCL in accordance with FDEP Rule 62-701.500, FAC, and Part K of FDEP's permit application Form 62-701.900(1) for solid waste management facilities.

# K.1 Training and Certification of Operators and Spotters (Rule 62-701.500(1), FAC)

This training plan together with documents that record training plan implementation are kept on site and will be made available to FDEP's inspection staff upon request.

Landfill operators and managers at the CCCL will participate in 24 hours of initial training that may consist of the *Manager of Landfill Operations (MOLO)* or equivalent and must pass the State exam to be certified. Within 3 years after passing the exam and every 3 years thereafter, landfill operators must complete an additional 16 hours of training. Spotters are required to complete an initial 8-hour training course and 4 hours of continuing education every 3 years. Operator and spotter training will be FDEP-approved courses.

All courses, whether public or in-house, will meet the requirements of Rule 62-701.320(15), FAC. Courses conducted by the University of Florida Training, Research and Education for Environmental Occupations (TREEO) Center are approved by the Florida Solid Waste Management Training Committee and meet the requirements of Rule 62-701.320(15), FAC.

In accordance with Rule 62-701.500(1), FAC, at least one trained operator will be on duty at the CCCL whenever waste is received at the facility. At least one trained spotter will be present at each landfill active working face when waste is received. The compactor operator will be responsible for evaluating each load visually as it is dumped and serve as the spotter at the working face of the facility. Operator and spotter training will comply with Rule 62-701.320(15), FAC.

The facility may also employ interim spotters. An interim spotter is someone who, in the opinion of the Solid Waste Director, has shown competency in waste spotting through a combination of work experience, education, and training. An interim spotter will work under the direct supervision of a trained spotter or trained operator. The facility may employ an interim spotter in lieu of a trained spotter for no more than 3 consecutive months.

# K.2 LANDFILL OPERATION PLAN PROCEDURES (RULE 62-701.500(2), FAC)

## K.2.A DESIGNATING RESPONSIBLE OPERATING AND MAINTENANCE PERSONNEL (Rule 62-701.500(2)(A), FAC)

The persons directly responsible for major components of the CCCL are as follows:

Component	Responsible Party
Operations	Field Crew Leader
Maintenance	Maintenance Supervisor
Permitting Requirements	Solid Waste Management Division Director
Water-Quality Testing	Solid Waste Management Division Director
Hazardous Waste Operations	Hazardous Waste Coordinator

The landfill Field Crew Leader has overall responsibility for the operation of the landfill. The landfill Field Crew Leader is responsible for the day-to-day implementation of the Operation Plan and, together with the Solid Waste Management Division (SWMD) Director, is responsible for environmentally safe operations in accordance with state and federal regulations.

#### K.2.B EMERGENCY PREPAREDNESS AND RESPONSE (Rule 62-701.500(2)(B), FAC)

An Emergency Incidents and Contingency Plan was prepared in accordance with Rule 62-701.320(16), FAC; Appendix A of this Operation Plan includes the plan. The plan for the facility addresses the following:

- Equipment failure.
- Unusual operating conditions resulting from poor weather conditions.
- Accidents.
- Fire.
- Unavailable landfill capacity.

#### K.2.B.1 Equipment Failure

Sufficient back-up equipment will be provided on-site for equipment breakdowns and for downtime because of normal routine equipment maintenance. In the case of a major equipment failure, the following procedures will be followed:

- Maintain duplicate equipment capability.
- Contact contractors and rental equipment dealers as pre-arranged to furnish equipment on short-term notice (within 24 hours).

During equipment failure, the Field Crew Leader will contact the Landfill Maintenance Supervisor. Within 24 hours of notification by the Landfill Maintenance Supervisor, the equipment will be replaced with back-up capability if necessary or repaired and placed back in operating condition.

All equipment maintenance will be performed by the County or contracted by the County to a maintenance contractor.

Redundant pumping systems are provided for the leachate and stormwater transfer systems.

Emergency power generators are available for the administration building, office trailer, and stormwater and leachate facilities.

#### K.2.B.2 Poor Weather Conditions and Natural Disasters

Unusual operating conditions could result from excessive rainfall and electrical storms. The type and volume of materials to be disposed of after a hurricane or excessive storms will change normal landfill operations. During extremely high wind conditions or electrical storms, disposal operations will be temporarily suspended to protect the workers. Disposal operations will be suspended immediately before and during a hurricane or tornado.

During rainy weather, access to each working face along on-site roads must be maintained. Grading out ruts more frequently than during normal operations or applying additional material to the on-site access roads to counteract the effects of rain may be necessary.

#### K.2.B.3 Fire

Waste loads on fire that arrive at the CCCL will not be deposited at the working face. They will be deposited away from the working face on an area that has previously been covered with daily soil cover. The load will then be spread out and covered with daily cover soil to extinguish the fire. If a fire does occur at the landfill working face, a temporary area will be identified as far away from the fire as possible but still within the limits of the lined disposal area where daily soil cover has previously been placed. Berms will be constructed around the temporary area using on-site equipment and soil materials from the on-site stockpile. Solid waste entering the facility will be placed in the temporary area until the fire is extinguished.

Waste will be transported from the temporary area to the working face using on-site equipment. The soil berms around the temporary area will then be leveled and spread out over the surface at the temporary area.

#### K.2.B.4 Temporary Transfer Station

The Emergency Incidents and Contingency Plan, Appendix A, Section 7.7 provides procedures for the temporary transfer station. Appendix B provides a copy of the relevant Interlocal Agreement for emergency waste disposal.

#### K.2.C CONTROL/INSPECTION OF INCOMING WASTE (RULE 62-701.500(2)(C), FAC)

All solid waste arriving at the CCCL is routed through the scale house. Scale house attendants screen visible loads for unacceptable materials including recyclables, hazardous waste, and medical waste. From the scale house, loads are directed to the Class I disposal area or to the CSA. The CSA provides temporary storage for recyclable material, waste oils, yard waste, white goods, batteries, and tires. A spotter will be at the CSA and at each landfill working face to observe the types of waste actually deposited. If prohibited wastes are discovered, the spotter will direct the vehicle back to the office. If the waste has not yet

been unloaded, the person responsible for shipping the waste will be notified. If the waste has been deposited, the area of the waste load should be blocked from public access until the generator or hauler of the waste cleans up the waste. If the generator or hauler of the waste cannot be identified or is unable to remove the waste, the County will be responsible for cleanup, transportation, and disposal of the waste at an appropriate waste management facility.

Special waste shall be managed as follows:

- Used oil and antifreeze are each placed into double-wall containers within the CSA and collected by a contractor.
- Lawn debris is placed within the registered yard waste processing facility for management.
- Tires are placed into the permitted used tire facility for management.
- Appliances all Freon-containing appliances shall have the Freon removed by County personnel and then placed within the scrap metal recycling container. The container is collected by a contractor.
- Lead acid batteries are placed on pallets and collected by a recycling contractor once several pallets are loaded.

Additionally, management of other specific waste streams shall consist of:

- Motor vehicles: The CCCL does not currently accept motor vehicles for disposal. If motor vehicles are accepted for disposal in the future, they will be handled and disposed of in compliance with Rule 62-701.520(1), FAC.
- Shredded waste: The CCCL does not shred waste nor does it accept any shredded waste. If shredded waste is accepted for disposal in the future, it will be handled and disposed of in compliance with Rule 62-701.520(2), FAC.
- Asbestos: Asbestos Containing Materials (ACM) are accepted at the CCCL after special arrangements are made with landfill personnel. The quantity and scheduled shipment date are coordinated. Any friable ACM is wet-wrapped. A location is prepared separate from the landfill working face, the disposal location within the landfill is recorded, and disposed ACM is covered daily with soil cover.
- Contaminated soil: In accordance with Rule 62-701.520(4), FAC, the County accepts contaminated soils on the condition that they are not hazardous. Contaminated soil can be disposed of in the CCCL after special arrangements are made with landfill personnel. The quantity and schedule shipment date are coordinated. Only petroleum-contaminated soil treated in accordance with Chapter 62-713, FAC, is accepted. Also, analysis results showing that the soil is non-hazardous is required before disposal. The contaminated soil is disposed of at the landfill working face and the location in the landfill is recorded.
- Biological wastes: The CCCL does not currently accept biological wastes for disposal. If biological wastes are accepted for disposal in the future, they will be handled and disposed of in compliance with Rule 62-701.520(5), FAC.

Figure ES-1 shows that the CCCL has a permanent household hazardous waste collection and storage facility at the southwest corner of the landfill site. The facility is used for collecting and storing household hazardous waste (HHW) and Conditionally Exempt Small Quantity Generator (CESQG) waste. The building is engineered to comply with Environmental Protection Agency (EPA), National Fire Protection Association (NFPA), and

Occupational Safety and Health Administration (OSHA) standards and regulations for storing hazardous chemicals and wastes. The Household Hazardous Waste Collection/Storage (HHW C/S) Facility will be operated in accordance with the guidelines outlined in Appendix 4 of the Emergency Incidents and Contingency Plan (Appendix A of this Operation Plan). The current schedule allows for periodic program days for HHW and CESQG collection. The following is a summary of some HHW C/S Facility guidelines:

- HHW received at the CSA shall be identified and relocated for storage within the containment area of the HHW C/S Facility at the end of each collection day.
- Spillage shall be removed and properly packaged for disposal. Soils that have been contaminated by spills shall be removed and packaged for proper disposal on the same day that the spill occurred.
- Liquids, including contaminated rainwater, shall not be discharged outside the containment structures.
- Latex paints shall be stored within a secondary containment area and may be collected by a contractor or used as an approved alternate daily cover (ADC) process.
- Waste received at the HHW C/S Facility shall be stored in containment areas at all times.
- Records regarding the quantities of HHW collected and removed for disposal shall be compiled quarterly and maintained at the facility for FDEP review upon request.

#### K.2.D WEIGHING INCOMING WASTES (RULE 62-701.500(2)(D), FAC)

Weighing of incoming wastes will be performed at the scale house. Each customer receives a receipt made out by an automatic cash register showing the type of refuse, amount, and fee.

These receipts are used for financial accountability and to complete the necessary daily, weekly, monthly, and annual activities/materials reports required by FDEP and the County.

#### K.2.E Vehicle Traffic Control and Unloading (Rule 62-701.500(2)(e), FAC)

All traffic entering the CCCL must pass though the scale house. Vehicle traffic control and unloading is directed by signage for unloading areas and the attendant in the scale house. The attendant will direct the vehicle to the unloading point that is compatible with the waste. Additional traffic directions will be provided, when needed, by the equipment operator or spotters.

#### K.2.F METHOD AND SEQUENCING OF FILLING WASTES (RULE 62-701.500(2)(F), FAC)

The CCCL will be operated using the area fill method. Waste delivered to the CCCL will be directed to each working face of the landfill for unloading. Once unloaded, waste will be spread in layers approximately 2 feet thick and compacted to approximately 1 foot thick for the remainder of Phases 1/1A, 2, and 3 and proposed for Phase 4.

The active Class I Landfill may operate two working faces to separate residential and commercial haulers disposing of waste. Each working face will have the required trained equipment operations/spotters. The secondary working face will only be wide enough to accommodate vehicles discharging waste and related landfill equipment to minimize the exposed area and prevent the use of unnecessary daily cover material. The secondary working face will not be constructed with slopes steeper then 3H:1V or as would violate normal safety practices.

Phase 4 will be divided into two subcells: Phase 4A consisting of the east portion of the Phase 4 area will be constructed first followed by Phase 4B at a later date. Filling in Phase 4A will begin in approximately 2024, and filling in Phase 4B will begin in approximately 2028. Waste phasing plans are in the Permit Drawing set titled *Citrus County Central Landfill Class I Phase 4 Expansion* (Appendix A of the Permit Application). Based on the depth of the landfill excavation and nature of Phase 4, modifications to the filling description below are expected to be required as filling progresses and the impacts of rain events and the rainy season are integrated into the filling process. Citrus County will update FDEP if lift thicknesses greater than 20 feet are required.

#### PHASE 4 SUBCELL 4A FILLING SEQUENCE

Waste placement for Lift 1 of Subcell 4A will begin in the northwest corner of Phase 4A, against the west Phase 4A north slope. A rain tarp will cover most of the Phase 4A drainage layer except for the northwest corner. When filling begins, trucks will back into the cell and dump select waste near the leading edge of the entry. This waste will be pushed onto the sand drainage layer by landfill equipment. Dumping will continue in this manner until sufficient waste has been placed to permit the waste vehicles to perform all maneuvers within the confines of the cell and so that trucks will no longer need to back into the cell. Waste placement will progress approximately as follows:

- Four to 6 feet of select waste is placed on the first acre as a flooring lift in the northwest corner of Phase 4A. This lift will be graded to drain east into the interior of Phase 4A.
- Once the flooring lift is complete in approximately 1 acre (200 feet x 200 feet), the flooring lift will progress west and be graded to drain east.
- This process will be repeated from north to south progressing east until approximately the midpoint of Phase 4A.
- At this point, the process will begin again when a 12- to 20-foot lift of waste will be added to allow stormwater to drain west over the edge-of-liner. This stormwater will then be pumped to the stormwater pond north of Phase 4A.
- This process will be repeated from north to south progressing east until approximately the midpoint of Phase 4A.
- At this point, 4 to 6 feet of select waste will placed in the south side of Phase 4A at the midpoint of Phase 4A in approximately a 1-acre area. This flooring lift will be progressed to the east edge of Phase 4A and will be graded to drain north.
- Once the flooring lift has been installed, an approximately 20-foot lift of waste will be added to allow stormwater to drain west and over the edge-of-liner. This stormwater will then be pumped to the stormwater pond north of Phase 4A.
- This process will be then repeated and progress north until the entire bottom portion of Phase 4A is covered and drains freely west over the edge-of-liner.
- At this point, waste placement will transition to the southeast corner of the cell.
   Approximately 20-foot lifts will be installed progressing west and then north.
- This process will be repeated until the west landfill waste face has been constructed in accordance with Drawing PH1 in the Permit Drawing Set. This west face has been designed to allow for future access to the Phase 4B landfill across the Phase 4A landfill.

Once a lift has been completed or as soon as possible during its progress, all outer sideslopes will be seeded or sodded to minimize erosion. The top surface of each lift will be graded at approximately 1 to 3 percent so that stormwater can drain. The crown will be oriented north to south. As the side slopes reach final design elevation, an intermediate cover will be applied to minimize leachate generation. Cover application is described in Section K.2.g.2. Outer side slopes on Phase 4A will be graded at 3H:1V. Stormwater will be allowed to shed from areas of the landfill covered with intermediate cover and sod by using temporary berms until the design grade is reached. The top of the final lift will be graded at 3 to 5 percent to meet the conceptual final cover design where possible before Phase 4B filling.

#### Phase 4 Phase 4B FILLING SEQUENCE

Waste placement for Lift 1 of Subcell 4B will begin in the southeast corner of Phase 4B. A rain tarp will cover most of the Phase 4A double-lined expansion area except for the southeast corner. When filling begins in the southeast corner, trucks will enter into the cell and dump select waste near the leading edge of the waste. This waste will be pushed onto the sand drainage layer by landfill equipment. Waste placement will progress approximately as follows:

- Four to 6 feet of select waste is placed on the first acre as a flooring lift in the southeast corner of Phase 4B. This lift will be graded to drain north onto the stormwater liner where it will be collected and pumped to the stormwater pond to the north.
- Once the flooring lift is complete in approximately 1 acre (200 feet x 200 feet), the flooring lift will be progressed west and graded to drain north.
- At this point, the process will begin again with an approximately 20-foot lift of waste graded to drain north.
- This process will be repeated from east to west. Sequential 20-foot lifts will be added as Phase 4A is filled to the existing ground surface and progressed north at the same time.
- This process will be repeated until Phase 4A and Phase 4B drain freely to the perimeter stormwater system.

Once a lift has been completed or as soon as possible during its progress, all outer side slopes will be seeded or sodded to minimize erosion. The top surface of each lift will be graded at approximately 1 to 3 percent so that stormwater can drain. The crown will be oriented north to south. As the side slopes reach final design elevation, an intermediate cover will be applied to minimize leachate generation. Cover application is described in Section K.2.g.2. Outer side slopes on Phase 4B will be graded at 3H:1V. Stormwater will be allowed to shed from areas of the landfill covered with intermediate cover and sod by using temporary berms until the design grade is reached. The top of the final lift will be graded at 3 to 5 percent to meet the conceptual final cover design where possible before Phase 4B filling.

#### K.2.G WASTE COMPACTION AND APPLICATION OF COVER (Rule 62-701.500(2)(G), FAC)

#### K.2.G.1 Method of Filling Wastes/Compaction

The procedure for filling and compacting of the initial waste lifts over areas of exposed liner will be as follows:

• To protect the integrity of the leachate collection system and liner, driving vehicles directly over the liner will be prohibited.

- The bottom liner of each phase will be covered with a minimum of 2 feet of protective soil before the placement of special waste.
- The landfill spotter directs equipment away from the sideslope liner during normal operations.
- The initial lift of waste will be 4 feet thick and selected for material that will not cause damage to the liner. The initial lift of waste will be spread with equipment that will preserve the integrity of the liner system.

The procedures for filling and compacting all waste will be as follows:

- Waste will be placed against the base of the previous day's waste, so that the first row will act as a means of access and a berm to guide the placement of waste material for the remaining rows.
- The waste will be spread and completed in 2-foot layers and compacted to approximately 1 foot in thickness by a minimum of five passes using a landfill compactor.

#### K.2.G.2 Daily and Intermediate Cover

Cover material will be used to minimize vector breeding, animal attraction, and fire potential, as well as to prevent blowing litter and control odors. Daily cover will be composed of soil from the on-site stockpile, a 50/50 mixture of yard waste mulch and soil, synthetic materials such as tarps and geomembranes, or approved ADC material consisting of a spray-on slurry of polymer recycled paper fibers and latex paint in accordance with the manufacturer's specifications. Daily soil cover will be placed and compacted to a minimum thickness of 6 inches; spray-on daily cover will be applied in accordance with the manufacturer's specifications and shall not be used in the rain. The intermediate cover will be comprised of soil from the on-site stockpile or a 50/50 mixture of yard waste mulch and soil.

The intermediate soil cover will be placed and compacted to a minimum thickness of 12 inches. Mulch will be from on-site recycled yard waste.

If tarps or geomembranes are used as temporary daily cover, the tarps or geomembranes will be spread to cover the waste material. Sand or the tarp spreader bar will be used to minimize wind uplift. When the working face area exceeds the area of available tarp, 6 inches of compacted soil will be placed to cover the waste material. A 50/50 mixture of yard waste mulch and soil may be spread over the initial soil cover for stabilization and erosion-control measures.

When using ADC material, the waste shall be compacted within the working face before applying the ADC to ensure proper coverage of the waste and applied in accordance with the manufacturer's specifications. If uneven waste surfaces are present, spray-on materials will be applied from at least two different angles to ensure complete coverage of the waste. The landfill operator or designee will receive training in the proper mixing, application, and use of the spray-on material from the manufacturer or its representative. The operator who has received the manufacturer's training will apply the spray-on cover or provide direct supervision of the landfill staff applying the application to ensure that the material is properly applied.

#### K.2.G.3 Final Cover

The final cover system will be designed in accordance with Rule 62-701.600(5), FAC. The final cover will be placed on the intermediate cover as phases of the facility are closed. The conceptual final cover system for landfill closure, from top to bottom includes the following:

- Sod.
- 24-inch soil layer with the upper 6 inches capable of supporting vegetative growth.
- Double-sided geocomposite drainage layer.
- 40-mil textured linear low-density polyethylene (LLDPE) geomembrane.
- 12 inches of soil-leveling course to intermediate cover that has been prepared and compacted over the waste.

K.2.H OPERATIONS OF GAS, LEACHATE, AND STORMWATER CONTROLS (Rule 62-701.500(2)(H), FAC)

#### K.2.H.1 Landfill Gas Controls

The landfill gas (LFG) management system at the closed landfill cells currently consists of passive vents in the closed landfill, which serves to minimize the potential for off-site migration of LFG. A small blower skid station was installed at the closed site in 2018 that connects to the passive gas vents, which have been modified with extraction wellheads. This blower extraction system induces low pressure inside the closed landfill and inhibits lateral migration of LFG.

An active landfill gas collection and control system (GCCS) is installed at the active landfill (Phases 1, 1A, 2, and 3) that includes vertical extraction wells, horizontal collectors, and tie-ins to the existing leachate collection and removal system (LCRS). The vertical wells are installed in Phases 1, 1A, and 2. A limited number of horizontal collectors have been installed in Phase 3 and will also be installed for Phase 4. The GCCS will continue to expand at the active landfill as waste filling continues. The LFG from this active system is routed via a header and lateral pipe to a blower/flare station where the gas is combusted in a candlestick flare. The GCCS is a voluntary active landfill GCCS that proactively reduces methane emissions to the atmosphere. This system is not required by the Federal New Source Performance Standards (NSPS) and therefore the operation, monitoring, reporting, and recordkeeping requirements of NSPS do not apply.

The operations procedures for the GCCS will be as follows:

- 1. The vertical extraction wells and LCRS tie-ins should be inspected periodically (i.e., on a monthly or bi-monthly basis) to ensure that all components are functioning properly.
- 2. As filling operations continue, vertical wells in the active area of the landfill will be raised.
- 3. The pneumatic pumps should be inspected periodically to ensure proper operation. The frequency of inspection will be determined based on field operations and whether the pumps are maintaining liquid levels in the sumps low enough not to impact vacuum distribution to the wellfield. Pump counters should be checked and cycle counts recorded and reviewed to ensure pump operation.

- 4. The following is a list of spare parts that may be kept on site:
  - Wellhead components.
  - Sample ports.
  - Dust caps.
  - Orifice plates (assorted diameters: 0.1 inch through 1.4 inches).
  - 2-inch Fernco quick caps.
  - Fernco bushings and couplings (assorted 4- and 6-inch-diameter sizes).
  - Worm-gear hose clamps, assorted sizes.
  - Kanaflex flexible hoses and clamps.

#### K.2.H.2 Startup and Shutdown Procedures

The GCCS is designed to operate continuously except for periods of automatic or manual shutdowns. Startup and shutdown events are generally planned events associated with system repair, maintenance, testing, and upgrades. Startup and shutdown procedures are outlined in the blower/flare station Operations and Maintenance (O&M) manual provided by the flare manufacturer, Shaw LFG Specialties, LLC, which is maintained on site.

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. Two general types of shutdown events are: (1) those that are initiated manually by an operator (e.g., for system maintenance), and (2) those that are initiated automatically by the control system in response to certain monitored conditions.

Some events that may cause the GCCS to shutdown automatically are listed below:

- 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.

#### K.2.H.3 GCCS O&M

Extraction wells are inspected periodically to ensure that all components and fittings are functioning properly. Loose fittings and couplings can introduce air into the system and

cumulatively reduce the collection efficiency of the GCCS. O&M procedures for the vertical wellheads include the following:

- Wellhead valves should be exercised across their entire range of operation to confirm their functionality periodically. If the valve does not move or is otherwise broken, it should be replaced.
- Wellhead sample ports and dust caps should be checked for leaks and repaired or replaced if necessary.

- Ensure that all joints and mechanical fasteners (unions, Fernco couplings, hose clamps, etc.) are in good condition, secure, and provide a proper seal from leaks. Any loose or broken fittings should be tightened or repaired.
- Flexible hoses should be inspected for cracks and breaks that can occur resulting from the hose becoming brittle due to exposure to extreme weather conditions.
- The aboveground well casing should be checked for cracks or leaks, and the technician should make note of any voids or settlement that may have occurred on the ground near the well.
- Adjust the wellhead valve as necessary to minimize oxygen concentration to no more than 5 percent by volume. If oxygen levels persist above 5 percent, troubleshooting the well or shutting it off until oxygen levels can be lowered may be necessary.

LCRS tie-ins should be inspected periodically to ensure that all components and fittings are functioning properly. Loose fittings and couplings can introduce air into the system and cumulatively reduce the collection efficiency of the GCCS. O&M procedures for the wellheads at the LCRS tie-ins include the following:

- Note any odors or signs of built-up pressure at LCRS risers as this indicates the presence of excess LFG in the area that could potentially be collected.
- Exercise wellhead valves across their entire range of operation to confirm their functionality periodically. If the valve does not move or is otherwise broken, it should be replaced.
- Check wellhead sample ports and dust caps for leaks and repair or replace if necessary.
- Ensure all joints and mechanical fasteners (unions, Fernco couplings, hose clamps, etc.)
  are in good condition, secure, and provide a proper seal from leaks. Any loose or broken
  fittings should be tightened or repaired.
- Inspect flexible hoses for cracks and breaks that can occur resulting from the hose becoming brittle due to exposure to extreme weather conditions.
- Adjust the wellhead valve as necessary to minimize oxygen concentration to no more than 5 percent by volume. If oxygen levels persist above 5 percent, troubleshooting the well or shutting it off until oxygen levels can be lowered may be necessary.

#### K.2.H.4 System Monitoring

Each monitoring well will be monitored on a quarterly basis at a minimum for static pressure, methane, or combustible gases using an instrument calibrated to methane, carbon dioxide, and oxygen concentration. Methane will be measured and recorded in terms of a percent by volume. The monitoring equipment will be calibrated in accordance with the manufacturer's recommendations.

The general procedure for monitoring at each well is as follows:

- 1. Record meteorological conditions including ambient temperature and barometric pressure, if available.
- 2. Field-calibrate the methane monitoring equipment.
- 3. Before monitoring, note any damage to the wellhead, well casing, or LCRS riser pipe, and repair if necessary. Failure to repair damage can affect the validity of the monitoring results.
- 4. Record the time of monitoring for the well.

- 5. Connect the monitoring instrument to the sampling hose.
- 6. Turn on the meter and observe the monitored parameters.
- 7. Remove the instrument and hose.
- 8. Repeat steps 3 through 7 for each monitored location.

Any problems encountered during monitoring, observations, or other pertinent information that could impact the interpretation of the data shall be recorded.

The following lists the parameters typically recorded at the wellheads:

- Temperature.
- Vacuum.
- Methane concentration.
- Carbon dioxide concentration.
- Oxygen concentration.
- Balance gas concentration.

The following lists the parameters typically recorded at the inlet of the blower/flare station:

- Gas flow rate and temperature.
- Methane concentration.
- Carbon dioxide concentration.
- Oxygen concentration.
- Balance gas concentration.
- System pressure.

#### K.2.H.5 System Maintenance

The wellheads shall be operated and maintained in accordance with the manufacturer's specifications and operational instructions. If any problems are found at the wellheads, wells, or nearby header and lateral piping, repairs shall be initiated at that time, if possible. All repair activities will be recorded and kept onsite.

#### K.2.H.6 Isolation of Portions of the GCCS

The GCCS is designed with header isolation valves that can be closed to isolate header segments to accommodate troubleshooting and repairs. These butterfly valves are shown on the record drawings that are on file with FDEP and maintained on site.

#### K.2.H.7 Condensate Management System Monitoring and Maintenance

Condensate is formed as extracted LFG cools. The rate at which condensate is generated is dependent on the LFG flow rates and the temperature differential between the warmer gas and the cooler piping.

Condensate traps and sumps are located along the header to remove condensate from the gas stream at engineered low points. Condensate collected in the traps drains back into the waste mass. Condensate collected in sumps with pumps is pumped to the leachate collection tanks via a force main.

No maintenance or monitoring is required for the condensate traps since they are self-draining. Sump maintenance includes periodically checking and cleaning the pneumatic pumps as recommended by the manufacturer. In addition, the pumping rate can be estimated based on the cycle counter readings.

#### K.2.H.8 Subsurface Fire Considerations

Subsurface landfill fires or subsurface oxidation can occur when buried waste in the CCCL ignites. The natural decomposition of waste can create substantially high temperatures and with enough oxygen can lead to combustion or oxidation of the waste. These events can be minimized by limiting the potential for atmospheric oxygen to enter the waste mass by ensuring adequate landfill cover and avoiding over-pulling on the CCCL by the GCCS. The temperature of the extracted LFG will be measured at the wellheads.

If a subsurface oxidation is detected, the technician or other site personnel will immediately notify the Site Manager, and actions will be implemented to contain and eliminate the oxidation.

The following symptoms may indicate the presence of a subsurface waste oxidation:

- Deformed well casings.
- Carbon monoxide (CO) concentrations in excess of 1,000 parts per million (ppm) in the extracted LFG. Levels of CO between 500 and 1,000 ppm are viewed as indicators of a potential subsurface oxidation and require further investigation.
- Dramatic localized settling.
- Sharp increase in LFG temperatures.
- Smoke or smoky odor emanating from the landfill surface or wellheads.
- Stressed vegetation.
- Presence of sooty material inside GCCS components.

The most effective method of preventing, suppressing, and extinguishing a subsurface oxidation is to eliminate the pathways of oxygen intrusion into the CCCL. To accomplish this, potential sources of air intrusion must be sealed as much as practical, and the rate of LFG extraction may need to be reduced. In severe cases, the entire GCCS may need to be shut down in the areas adjacent to the affected waste mass.

Even after these measures have been taken, subsurface oxidation may continue for days or weeks before it is completely extinguished. Daily CO and temperature monitoring of extraction points within the area of the subsurface oxidation should be performed to determine the effectiveness of the implemented control measures.

#### K.2.H.9 Leachate Controls

For Phases 1/1A, 2, 3, and 4, the leachate management system design includes a system of collection pipes that lead to a sideslope sump. The sideslope sump is at the low-point at the west end of each cell, except for Phase 4, which has sideslope sumps at the north end of each subcell (4A and 4B). The low-point acts as the sump for the collection and detection systems. For leachate removal, the collection riser and the leak-detection riser include submersible pumps. Leachate from Phase 1/1A will be first pumped to the Master Pump Station (MPS) and then pumped to the leachate storage tank along with the leachate

currently being collected from the 7-acre closed area. Leachate from Phases 2, 3, and 4 will be pumped to the leachate storage tank.

The main components of the Phases 1/1A, 2, 3, and 4 leachate management system include the following:

- Geocomposite drainage layer with rock-filled leachate collection trenches and perforated pipes leading to a main header pipe.
- Collection sump system including collection riser, leak-detection riser, and submersible pumps for leachate removal.
- Control panel including pump controls and remote flow-meter head, including telemetry relay to the computer monitoring system at the office.
- Connection to influent line to the MPS and underground high-density polyethylene (HDPE) piping force main.

Leachate is stored in the leachate storage tanks on the south side of the site; leachate is then transported via a force main to the Meadowcrest WWTP. Appendix C of this Operation Plan provides a copy of the Leachate Treatment Agreement.

Leachate evaporation will be employed as a supplemental method to dispose of leachate. The supplemental evaporation of leachate involves spraying small quantities of leachate from a spray bar mounted on the rear of a tank truck onto Phases 2, 3, and 4 areas of the CCCL. Leachate spray evaporation may be applied under the following conditions:

 Leachate may only be applied on Phases 2, 3, and 4 within the bermed working face area.

Leachate generation will be minimized by keeping the working faces as small as possible. A second working face may be used occasionally. During special events, such as during initial lift filling of a new cell, additional working faces may be operated. Daily and/or intermediate cover will be placed with slopes to promote stormwater runoff. The mixing of stormwater with leachate will be minimized by grading the daily and/or intermediate cover away from the working face and by using soil berms to direct stormwater runoff away from the working face. Gutters and lined conveyance ditches will also be used to collect and transport stormwater to stormwater management facilities.

#### K.2.H.10 Stormwater Controls

Section K.10 of this Operation Plan discusses the operation of the existing stormwater system. The stormwater system will be managed as required by Rule 62-701.500(10), FAC, to meet applicable standards for Rules 62-302 and 62-330, FAC. The system shall minimize stormwater from entering waste-filled areas and avoid stormwater mixing with leachate. All stormwater conveyances shall be inspected to verify adequate performance as part of the Daily Operator Log (Appendix D). Conveyances not performing adequately will be repaired within 3 working days. Documentation of all inspections and repairs will be kept on file at the landfill office.

#### K.2.I WATER QUALITY MONITORING (RULE 62-701.500(2)(I), FAC)

Groundwater monitoring will be conducted as described in the *Citrus County Central Landfill Groundwater Monitoring Plan*. Changes to the monitoring plan were addressed in the *Citrus* 

County Central Landfill Water Quality Monitoring Plan by Jones Edmunds (February 2022) and submitted as part of this permit application (Part L). The updated *Groundwater Monitoring Plan* reflects those changes noted in the Jones Edmunds Report. The plan will be updated periodically based on current operation permit requirements with a current copy held in the Solid Waste Administration Offices at the CCCL.

## K.2.J MAINTAINING AND CLEANING THE LEACHATE COLLECTION SYSTEM (RULE 62-701.500(2)(J), FAC)

The leachate system at the CCCL consists of collection, storage, pre-treatment by aeration in the existing leachate storage tanks, and pumping to a County-operated wastewater treatment facility for ultimate disposal for the closed portion and Phases 1/1A, 2, 3, and 4 active portions of the landfill. Maintenance of the leachate system facilities is performed as specified in the manufacturer's manuals kept on file in the landfill office. Inspection and cleaning of the system will be performed every 5 years and/or at the time of permit renewal. Inspection of storage tanks will be performed every 3 years.

### **K.3** OPERATING RECORDS (Rule 6-2701.500(3), FAC)

The operating record will consist of all records, reports, analytical results, and all notifications as required by Rule 62-701, FAC. These records are considered an integral part of the Operation Plan and will be kept at or near the facility. The operating records will be available for inspection at reasonable times upon request by FDEP personnel.

The Citrus County SWMD Director will be responsible for storing and filing all operational records. The minimum records to be kept as part of the official operating record include the following:

- Current permits and applications.
- Monthly waste disposal records (column, weight, or truckloads, County of origin).
- Random load-checking records.
- Leachate quantities (information collected monthly/submitted annually to FDEP).
- On-site rain-gauge data.
- Annual estimate of remaining capacity (permitted disposal) in cubic yards.
- Regulatory agency inspection report.
- Groundwater sampling plan, including well construction information, sampling locations, and water-quality sampling results.
- All official notifications to or from FDEP regarding the facility.
- Training verifications/certifications.
- Landfill Operation Plan, including all supplementary material incorporated by reference.
- Leachate tank inspection records.
- Gas monitoring records.
- Maintenance summary forms.
- GCCS operating records.
- Unauthorized waste disposal manifests.
- CESQG verification documentation.

### K.4 WASTE RECORDS (RULE 62-701.500(4), FAC)

Each month a report of the amount of waste received in tons will be compiled. The report will also include estimates of the amounts of the following waste types:

- Household waste.
- Commercial waste.
- Ash residue.
- Incinerator by-pass waste.
- Construction and demolition debris.
- Treated biomedical waste.
- Agricultural waste.
- Industrial waste.
- Yard trash.
- Sewage sludge.
- Industrial sludge.
- Water/air treatment sludge.
- Waste tires.
- CSA.
- HHW facility.

In accordance with Rule 62-701.500(4)(a), FAC, reports are compiled monthly and copies provided to FDEP annually by February 1.

## K.5 ACCESS CONTROL (RULE 62-701.500(5), FAC)

The entire CCCL is fenced, and the access is gate controlled at all times. Figure ES-1 is a site plan of the entire landfill and illustrates the landfill access control facilities. The landfill operates and accepts waste from commercial haulers Monday through Saturday, as follows:

- Monday through Friday: 8:00 a.m. to 4:30 p.m.
- Holidays and Saturday: 8:00 a.m. to 2:30 p.m.

The facility is closed on Sundays and for the following holidays:

- New Year's Day.
- Memorial Day.
- Independence Day.
- Labor Day.
- Thanksgiving Day.
- Christmas Day.

Hours of operation may be extended following a natural disaster.

A sign at the entrance of the facility provides information concerning operating hours, holidays observed, restrictions, conditions of disposal, etc. Information is also on the facility's website at

https://www.citrusbocc.com/departments/public works/solid waste management/index.php.

During periods with inadequate daylight after 6:30 a.m., the County uses portable light plants to illuminate the working face. The facility does not accept waste from citizens until 8:00 a.m.

### K.6 LOAD CHECKING PROGRAM (RULE 62-701.500(6), FAC)

An operator must be on duty at the CCCL or access for waste disposal will not be available.

#### K.6.A WASTE INSPECTION (Rule 62-701.500(6)(A), FAC)

The County has implemented a load checking program to detect and discourage attempts to dispose of unauthorized wastes at the CCCL. This program includes at least three random checks by landfill personnel each week and inspection of suspicious loads, which are vehicles that have previously been determined to have delivered unauthorized waste or loads that have unusual physical characteristics.

If any regulated hazardous wastes are identified during load checking, the waste will be immediately placed in the HHW C/S Facility for sorting and storage. The following summarizes the load inspection program. The complete load inspection plan is kept on file in the landfill office.

- 1. Disposal area personnel will direct a minimum of three vehicles per week to a separate area within the working disposal area.
- 2. The driver of the vehicle will be asked the source of the waste by the inspector. The load will be completely discharged and spread uniformly so that all waste is visible.
- 3. The inspector will proceed to inspect the load for unauthorized waste. These shall include, but are not limited to, the following:
  - Restricted materials (tires, yard waste, etc.).
  - Regulated hazardous waste.
  - Biomedical waste.
  - Containers of liquids.
  - Compressed gas cylinders.
  - Polychlorinated biphenyl (PCB) wastes (transformers).
  - Large quantities of household type hazardous waste (indication of business source).
- 4. If any unauthorized items are observed, the waste will be relocated by the County to the appropriate disposal/management area. The collection company will be contacted to send a representative to verify the contents of the load with the inspector and the Crew Leader. Payment for disposal of the waste will be the sole responsibility of the person responsible for shipping the waste.
- 5. The person responsible for shipping the waste will provide a manifest documenting the proper disposal of the unauthorized waste found during inspection. The manifest must indicate the corresponding identification number assigned to the waste during inspection.
- 6. If any spill or contamination of regulated hazardous waste or biomedical waste is observed, the Crew Leader will notify a hazardous waste staff member and/or implement the Emergency Incidents and Contingency Plans (Appendix A). This plan may

- include notifying FDEP, the persons responsible for shipping the wastes, and/or the generator of the wastes.
- 7. Landfill personnel will relocate all special wastes such as tires, appliances, lead acid batteries, and lawn debris to the proper disposal areas. A separate invoice will be issued to the persons responsible for shipping the waste and made part of the inspection report. Section K.2.c provides procedures for handling special wastes.
- 8. If any amount of household hazardous waste is identified, the Crew Leader or a Hazardous Waste staff member will be notified and it will be relocated to the HHW C/S Facility.
- 9. Copies of all completed inspection reports will be forwarded to the Administrative Office for the Division of Solid Waste Management, the persons responsible for shipping the waste, and the Citrus County Special Operations Section. These records will be maintained for the life of the landfill.
- 10. Vehicles that have previously been determined to have delivered unauthorized waste will be considered suspicious and may be subjected to inspection at any time and in the same manner as the random inspections.

#### K.6.B HAZARDOUS WASTES AND HANDLING PROCEDURES (Rule 62-701.500(6)(B), FAC)

No hazardous wastes will be accepted at the CCCL for disposal. If any regulated hazardous wastes are identified by random load checking or are otherwise discovered to be improperly deposited at the landfill, the landfill operator shall promptly notify FDEP, the person responsible for shipping the wastes to the landfill, and the generator of the wastes, if known. The area where the wastes are deposited shall immediately be cordoned off from public access. If the generator or hauler cannot be identified, the landfill operator shall ensure the cleanup, transportation, and disposal of the waste at a permitted hazardous waste management facility.

Subsequent shipments from sources found or suspected to be previously responsible for shipping regulated hazardous waste shall be subject to precautionary measures before the solid waste management facility accepts wastes. The Citrus County Special Operations response team is notified for handling and storage of hazardous materials for disposal in an appropriate off-site facility.

The owner or operator shall arrange or have equipment for temporary storage, handling, and transport to an authorized disposal or recycling facility for unauthorized waste that is inadvertently accepted by the facility. Unless an alternate schedule is included in an operation plan submitted with the permit application that provides for the control of odors and vectors, putrescible waste shall not be stored for longer than 48 hours and non-putrescible waste shall not be stored for longer than 30 days.

#### K.6.C RECORDING INSPECTION RESULTS (Rule 62-701.500(6)(c), FAC)

Results of the load checking inspections described in Section K.6 of this document will be recorded in writing and retained at the CCCL for a minimum of 3 years in accordance with Chapter 62-701.500(6)(b)(2)(c), FAC. This information will include the date and time of inspection, name of the hauling firm, vehicle identification number, and observations made

by landfill personnel during the inspection. In addition, efforts to record the name of the driver, license plate number, and source of waste as stated by the driver will be made. The inspector will sign the written record. Appendix E provides a sample form used to document the inspection results.

### K.7 WASTE HANDLING REQUIREMENTS (RULE 6-2701.500(7), FAC)

The following description represents waste handling requirements as required by Rule 62-701.500(7), FAC. The County will meet or exceed the requirements at all times to minimize the potential adverse impacts to employees, public health, or safety.

The County will maintain a primary working face for commercial customers. On occasion, the County will have a second working face that will be used by residential customers to keep them separated from the commercial vehicles. The second working face will be operated and maintained in accordance with the guidelines of this Operation Plan.

#### K.7.A WASTE THICKNESS AND COMPACTION FREQUENCIES (Rule 62-701.500(7)(A), FAC)

The waste material will be spread in layers of approximately 2 feet in thickness and compacted to approximately 1 foot in thickness, or as thin as practical, by a landfill compactor before the next layer is applied.

#### K.7.B FIRST LAYER OF WASTE (RULE 62-701.500(7)(B), FAC)

The first lift of waste placed above the liner and leachate-collection system will be a minimum of 4 feet in compacted thickness. Waste loads in this first lift will be screened for any large, rigid objects or other materials that would damage the liner or leachate-collection system.

#### K.7.C SLOPES OF WORKING FACE (RULE 62-701.500(7)(c), FAC)

The working faces and side grades above land surface will be sloped at a maximum of 3 feet horizontal to 1 foot vertical rise. The lift depth will typically be a maximum of 10 feet. Lift depths may be deeper than 10 feet depending on specific operations, daily waste volumes, width of the working face, and good safety practices.

#### K.7.D WIDTH OF WORKING FACE (RULE 62-701.500(7)(D), FAC)

The working faces will only be wide enough to safely accommodate vehicles unloading materials and compacting equipment. Since the waste requires daily cover, the width of the working face will be minimized.

#### K.7.E INITIAL/DAILY COVER (Rule 62-701.500(7)(E), FAC)

Daily cover will consist of 6 inches of compacted soils, a yard waste/soil mix, synthetic material such as tarps and geomembranes, or a spray-on slurry of polymer and recycled paper fibers as approved by FDEP.

#### K.7.F INITIAL COVER PROCEDURES (Rule 62-701.500(7)(F), FAC)

Daily cover as described in K.7.e above will be placed over the waste at the end of each working day.

#### K.7.G INTERMEDIATE COVER (Rule 62-701.500(7)(G), FAC)

An intermediate cover in addition to the 6-inch initial cover shall be applied and maintained within 7 days of cell completion if additional solid waste will not be deposited within 180 days of cell completion. The landfill operator may remove all or part of the intermediate cover before placing additional waste or installing the final cover. The following materials meet the criteria of Subsection 62-701.200(55), FAC, and may also be used as intermediate cover:

- Recovered screen material.
- A mixture of soil and ground or chipped yard trash provided that soil makes up at least
   50 percent by volume of the mixture.

#### K.7.H FINAL COVER (RULE 62-701.500(7)(H), FAC)

Areas that have been filled to design dimensions will receive a final cover within 180 days after attaining final elevation in accordance with the Closure Plan for the CCCL. Section K.2.g.3 of this plan provides a description of the final cover.

#### K.7.I SCAVENGING AND SALVAGING CONTROL (RULE 62-701.500(7)(I), FAC)

Scavenging will be strictly prohibited at the working face of the CCCL.

#### K.7.J LITTER POLICING METHODS (RULE 62-701.500(7)(J), FAC)

If any litter escapes the litter controls employed in the working area, such litter will be picked up as soon as possible. Litter policing will occur at least on a daily basis. Any litter outside the working area will be picked up within 24 hours.

#### K.7.K EROSION CONTROL (RULE 62-701.500(7)(K), FAC)

Erosion control measures shall be employed to correct any erosion that exposes waste or causes malfunction of the stormwater management system. Such measures shall be implemented within 3 days of occurrence. If the erosion cannot be corrected within 7 days of occurrence, the landfill operator shall notify FDEP and propose a correction schedule. These measures are identified and discussed as follows:

- Intermediate soil cover configured to collect and transport stormwater.
- 4 to 5 inches of mulch soil cover to prevent erosion.
- Regular inspection of intermediate soil cover.
- Benches and lined ditches to transport concentrated volumes of stormwater runoff.

#### K.7.K.1 Intermediate Soil Cover

Temporary berms to direct stormwater away from solid waste placement and compaction activities will surround the active areas of the CCCL. Inactive areas will be covered with intermediate soil cover with a minimum thickness of 1 foot. The intermediate soil cover will be sloped to promote run-off and decrease infiltration of stormwater.

Intermediate covered areas subject to erosion will be mulched or seeded with grass appropriate to the season as needed to control erosion.

#### K.7.K.2 Down Drains

Stormwater collected in swales and benches will be directed to lined ditches and/or temporary piping. The lined ditches and/or temporary piping will be installed to transport the collected stormwater to the stormwater management system without damaging the intermediate soil cover. Lightweight reinforced polyethylene will be used to line the ditches.

#### K.7.K.3 Inspections

The intermediate soil cover will be regularly inspected for erosion damage. Any damage that is discovered will be repaired within 3 days.

## K.8 LEACHATE MANAGEMENT (RULE 62-701.500(8), FAC)

The design of the leachate management system includes a system of collection pipes that lead to a sideslope sump. The sideslope sump is at the low-point on the west side of each cell, except for the proposed Phase 4, which will be on the north side of the cell. The low-point acts as the sump for the collection and detection systems. For leachate removal, the collection riser and the leak-detection riser will include submersible pumps.

Leachate from Phases 1/1A and from the 7-acre closed area will be first pumped to the MPS then pumped to the leachate storage tank. Leachate is also pumped from Phases 2, 3, and 4 to the leachate storage tank. Effluent from the leachate storage tank will be pumped to the Meadowcrest WWTP or used as irrigation on Phases 2, 3, and 4. Appendix C provides the agreement with the WWTP. Since the leachate is going to a WWTP for treatment, the on-site treatment plant was decommissioned and demolished. The leachate will be applied in small quantities within the bermed working face area from a spray bar mounted on the rear of a tank truck. Leachate will not be applied during active precipitation, in the presence of ponding, or in quantities that may cause runoff, surface seeps, wind-blown spray, or exceedance of limits as the amounts described below:

- Leachate will be applied in Phase 4 once 30 feet of waste is in place and may be applied at a rate of less than 375,000 cubic feet/year, with no single day exceeding 3,552 gallons/day. Leachate recirculation will only be applied within the bermed working face area. If this area is already wet due to rainfall, leachate recirculation will not be applied and will not occur during active rainfall or where any standing water is observed within the bermed working face area. If perched water conditions or gas buildup are suspected, recirculation will be moved to a different area.
- Leachate will be applied in Phase 3 once 30 feet of waste is in place and may be applied at a rate of 3,552 gallons/day. Leachate recirculation will only be applied within the bermed working face area. If this area is already wet due to rainfall, leachate recirculation will not be applied and will not occur during active rainfall or where any standing water is observed within the bermed working face area.
- Leachate will be applied in Phases 2 and 3 at a maximum rate of 4,663 gallons/day once 70 feet of waste is in place. Leachate recirculation will only be applied within the bermed working face area. If this area is already wet due to rainfall, leachate recirculation will not be applied and will not occur during active rainfall or where any standing water is observed within the bermed working face area.

The main components of Phases 1/1A, 2, 3, and 4 leachate management systems include the following:

- Rock-filled leachate collection trenches with perforated pipes leading to the sump.
- Collection sump system including collection riser, leak-detection riser, and submersible pumps for leachate removal.
- Control panel including pump controls and remote flow-meter head.
- Connection to influent line to the existing leachate storage tank.

To manage leachate seeps on the north side of the landfill and to prevent the seeps from discharging beyond the limits of the bottom liner, a temporary sump and leachate transmission line was installed in 2021. The sump is on the north side of Phase 3; the leachate line is installed above grade, leachate flows by gravity to the west side of the landfill, and is then pumped to the leachate storage tanks at the far south side of the facility. This system will be removed as part of the Cell 4 expansion project.

#### K.8.A LEACHATE LEVEL MONITORING (RULE 62-701.500(8)(A), FAC)

The depth of leachate in the sumps in Phases 1/1A, 2, 3, and 4 is monitored with level transducers on the leachate removal pumps. In addition, the leachate pump sideslope risers and leachate collection pipe cleanout sideslope risers provide a mechanism to observe leachate levels through physical measurements.

Leachate levels within the sumps are maintained below the minimum bottom-liner slope elevation to prevent leachate from backing up onto the liner.

With the completion of the leachate force main to the Meadowcrest WWTP, leachate sampling and reporting are no longer required. The onsite leachate treatment plant has been demolished.

## K.8.B OPERATION AND MAINTENANCE OF LEACHATE COLLECTION SYSTEM (Rule 62-701.500(8)(B), FAC)

The landfill operator will be responsible for maintenance of the leachate systems, including the piping, pump stations, and piping to the leachate storage tank. The equipment manufacturer will provide O&M manuals for each of the system components.

Maintenance of each component will be performed in accordance with the manufacturer's specifications and documented on a Maintenance Summary Form (Appendix F). Maintenance documentation may also include a video of the cleaning procedures. O&M manuals include the following:

- Description of unit and component parts, including normal operating characteristics and limiting conditions.
- Operating procedures.
- Maintenance and overhaul procedures.
- Installation instructions.
- Original manufacturer's parts list, illustrations, and detailed assembly drawings.
- Spare parts ordering instructions.
- Manufacturer's printed O&M instructions.

During the filling of each cell, a rain tarp system will be employed to cover the exposed cell bottom and sideslopes where operations are not occurring. The rain tarp will be placed so that the area not being filled will be protected and stormwater diverted from the leachate system to the existing channels using the County's hydraulic pumps. In addition, a daily cover material will be placed on the working face during non-working hours as required to minimize leachate generation.

Flow will be monitored from the leachate pumps. Facility personnel will record leachate flows each business day allowing determination of leachate production as a function of rainfall and providing information to assess the efficiency of leachate and stormwater management practices. Leachate generation/flows will be reported quarterly, and the records will be kept at the facility as part of the official operation record.

At least once each business day, facility personnel will inspect each leachate pump station and the leachate level indicators to ensure proper operation. Pumping rates and electrical draw will be confirmed semiannually. If these tests indicate significantly reduced performance, the pumps will be pulled for inspection and repair. A replacement pump will be installed while the repairs are being made.

If leachate flow volume is noticeably decreased, the leachate collection system will be inspected. Possible reasons for low or no flow are pump and/or level transducer malfunction or collection pipe collapse or blockage. If pipe blockage is identified, the collection pipe will be power jetted to remove sediment buildup. Power jetting or rodding will be performed from either or both ends of the header.

## K.8.C LEACHATE HANDLING (IF REGULATED AS HAZARDOUS WASTE) (Rule 62-701.500(8)(B), FAC)

If, in the future, the leachate becomes classified as a hazardous waste, it will be managed in accordance with Rule 62-730, FAC, or other rules as may be applicable at the time.

#### K.8.D OFF-SITE TREATMENT (RULE 62-701.500(8)(c), FAC)

Leachate is transported via a force main west on SR 44 to a gravity manhole off County Road (CR) 491 north of SR 44, from which it is conveyed to the Meadowcrest WWTP via gravity and transmission mains. If additional treatment and disposal are necessary, leachate will be transported to one of several Citrus County Utilities WWTPs.

#### K.8.E CONTINGENCY PLAN FOR MANAGING LEACHATE (RULE 62-701.500(8)(E), FAC)

If the connection to the Meadowcrest WWTP is interrupted, leachate will be transported to one of several Citrus County Utilities WWTPs. Since multiple WWTPs are available for leachate disposal, complete interruption of offsite disposal ability is not expected.

#### K.8.F RECORDING LEACHATE QUANTITIES (Rule 62-701.500(8)(F), FAC)

Quantities of leachate collected by the LCRS are recorded in gallons per day from the leachate flow observations. Utilities staff record daily flow amounts on a standard form. Completed forms are compiled monthly is the compiled form is sent to the Facility Manager to be filed in the facility's operating record.

The County uses a number of metering points to measure leachate generation. The flows generated from each landfill phase of the newer 80-acre area are measured directly by flow meters within the discharge line of each pump.

The flow meter at the discharge location for the treatment plant discharge recirculates back to the MPS. Flow meter Number 5 records the flow coming from the 7-acre closed area and the treatment plant. With construction of the new leachate force main, a new meter has been installed in the vicinity of the scalehouse.

#### K.8.G RECORDING PRECIPITATION (Rule 62-701.500(8)(G), FAC)

A rain gauge has been installed and is operated and maintained by County personnel to record precipitation at the disposal facility. Precipitation records will be maintained in the facility's operating record and will be compared with leachate generation rates.

#### K.8.H INSPECTION AND CLEANING (RULE 62-101.500(8)(H), FAC)

The leachate collection systems at the CCCL will be pressure cleaned or inspected by video every 5 years or at permit renewal. Results of the cleanings and inspections are kept on file in the landfill office.

#### K.8.I LEACHATE STORAGE TANKS

The CCCL has two aboveground, cast-in-place concrete leachate storage tanks on the southwest side of the active Class I Landfill. The tanks were constructed in 1996 and each tank has a storage capacity of 125,000 gallons. The tanks are 39.5 feet wide x 39.5 feet long x 13.83 feet high. The storage tanks are not enclosed and have a system of aerators for leachate pretreatment. The secondary containment system is 100 feet wide x 100 feet long x 4.75 feet high.

#### STORAGE TANK CONSTRUCTION

The tanks are cast-in-place concrete. The exterior of the tanks are coated with a protective epoxy. The interior surfaces of the tanks and secondary containment are also coated with an elasticized polymer to protect the concrete from leachate.

#### TANK INTERIOR AND EXTERIOR INSPECTIONS

Citrus County staff or their designee will inspect the exteriors of all tanks at least **weekly**. The inspector will look for any structural damage to the tank, damage to the coating system, loose connections, corrosion, visible leaks, and maintenance deficiencies. The inspector will also look for any structural damage to the concrete walls and floor of the secondary containment system.

Access to the inside of each tank is provided by an exterior staircase from the base to the top of the tanks; each tank has an interior access ladder that extends from the top of the tank to the floor.

The interiors of the tanks will be inspected **at least once every 3 years**. A tank cannot be emptied and cleaned if an intense storm is forecast. Before the tank is inspected, any sediment in the tanks is pumped out and disposed of in the Class I Landfill or hauled by

truck to a permitted wastewater treatment plant. The inspector will look for any damage to the interior coating system, structural damage or cracking of the tank, and visible leaks.

If inspections reveal any deficiencies with the interior and/or exterior of the tanks that could result in the system failing to contain leachate, Citrus County will take immediate action to remediate the situation. Citrus County will arrange for repairs of any failures or damage to the tanks. Citrus County will also immediately notify the manufacturer or another qualified contractor of the situation; this contractor will perform a detailed damage assessment and remediation of the tanks. FDEP will be notified in writing of the situation and of the proposed corrective action for significant deficiencies that require more than 48 hours to repair.

Inspection reports and reports of any remedial action measures taken will be maintained at the site and will be made available to FDEP upon request. All reports will be maintained for the lifetime of the tanks and the containment system.

#### SECONDARY CONTAINMENT SYSTEM

A secondary containment system for the storage tanks is in place and is capable of containing 110 percent of the total volume (250,000 gallons x 110 percent = 275,000 gallons).

The containment system consists of a 6-inch-thick reinforced concrete floor slab with 1-foot-2-inch-thick reinforced thickened edge, 12-inch-thick reinforced concrete side walls, and two containment drains covered with a steel grate. The containment floor drains to the drainage grates; the discharge valve is closed at all times and manually opened only when discharging uncontaminated stormwater.

#### Leachate Storage in Secondary Containment

The longest period that leachate will be stored in the secondary containment area is 4 days (over a long weekend) during normal conditions. Tank leakage may occur for a period of weeks before a repair can be completed. In that case, the 4 days of storage may be exceeded. Accumulated precipitation or leachate shall be removed within 24 hours or when 90 percent of the trench drain volume is reached, whichever occurs first. Leachate is pumped back into the non-leaking storage tank.

#### Stormwater Removal from Secondary Containment

Stormwater collected in secondary containment will be visually inspected to determine if the stormwater has been contaminated. Signs of contamination include the following:

- An oily sheen on the surface of the liquid.
- A dark or nontransparent appearance of the liquid.
- An excess of suspended solids in the liquid.
- An odor coming from the liquid.

If no contamination is noted, the valve will be manually opened and the stormwater will be emptied to the existing stormwater collection system. If it is contaminated, the stormwater will be treated as leachate and pumped to the storage tanks.

The secondary containment area must be cleaned of leachate after a leachate storage event and before releasing contained stormwater into the stormwater pond. Leachate will be rinsed off the concrete using stormwater from the pond or clean water, and the rinse waste will be pumped to the storage tanks and handled as leachate.

#### LIQUID LEVEL MONITORING

The storage tanks are equipped with liquid level indicators that are float-operated with a direct readout. The level gauge boards are mounted in a highly visible location on the exterior of the tanks. A visual and audible alarm on the control panel will alert staff of potential problems with the pump system if a high leachate level (before overflow) is reached. The high-level alarm in the leachate tanks is set at 10 feet or 1 foot below the overflow. The overfill prevention system is inspected **weekly** by the County to ensure that it is operating properly. The leachate levels are also monitored by electronic indicators in each tank with the supervisory control and data acquisition (SCADA) system in the office that alerts staff of potential problems. The control panel also contains visual measurement meters of the tanks depths.

### K.9 LANDFILL GAS MONITORING (RULE 62-701.500(9), FAC)

This LFG monitoring program for the CCCL has been prepared in accordance with Rule 62-701.530, FAC. As described below, the plan includes monitoring for subsurface LFG migration at the facility property boundary adjacent to the active landfill (Phases 1/1A, 2, 3, and 4), the closed 60-acre landfill, and in on-site structures. The LFG monitoring program is designed to confirm compliance with the requirements of Rule 62-701.530(1)(a)1, FAC, which requires the following:

- The methane concentration in on- or off-site structures may not exceed 25 percent of the lower explosive limit (LEL). The LEL for methane is 5 percent by volume in air. Therefore, the maximum allowable concentration in on- or off-site structures is 1.25 percent methane by volume.
- The methane concentration at or beyond the landfill property boundary may not exceed the LEL (i.e., 5 percent methane by volume).

As explained below, the monitoring plan was prepared based on site-specific conditions.

#### K.9.A BACKGROUND INFORMATION

In November and December 2005, 19 permanent monitoring probes were installed along the new property boundary of the site. A new property boundary agreement has been established with the Florida Division of Forestry and FDEP. The LFG monitoring network was modified in 2017 from the approved gas management system design included in the Final Consent Agreement #05-1078. Due to the newly observed parameter exceedances, Jones Edmunds submitted a *Landfill Gas Assessment and Groundwater Delineation Plan* to FDEP on March 22, 2017, documenting a plan to expand the LFG and groundwater monitoring systems north of the closed Class I Landfills. The modifications were completed and are documented in the *Landfill Gas Assessment and Groundwater Delineation Report*, prepared by Jones Edmunds dated November 28, 2017. The new monitoring network includes the existing gas monitoring probes (GP-1 through GP-19) and 11 new LFG monitoring probes (GP-20 through GP-30). The probes were constructed as required in the Consent Order with

long sections of slotted pipe and have been retrofitted for monitoring at varying depths in each probe (Appendix G). As part of the Phase 4 expansion, four gas probes will be installed on the north and east sides of the expansion area. The LFG monitoring probes are monitored quarterly. Figure 9-1 is a site map showing the LFG monitoring probe locations, and Figure 9-2 details the gas probes.

#### K.9.B LANDFILL AREAS

The landfill areas on site include the closed 60-acre landfill, a part of which is approximately 7 acres that has a bottom liner as well as a geosynthetic cap liner, and the active Phases 1/1A, 2, 3, and 4 landfill cells. The balance of the closed 60-acre landfill is unlined but has been capped with a geosynthetic membrane and protective soil cover. The depth of waste in the closed 60-acre landfill is approximately 40 feet below ground surface. The active Class I Landfill (Phases 1/1A, 2, 3, and 4) has a geomembrane bottom-liner system, and the bottom depth of refuse is approximately 80 feet below ground surface. Groundwater is present approximately 110 feet below ground surface, and the soil at the site is primarily silty and clayey sand.

The GCCS at the active Class I Landfill is designed to provide a means of relieving internal gas pressures within the landfill and prevent fugitive emissions of LFG to the atmosphere through the cover soils and the subsurface migration of LFG to the surrounding areas. The GCCS includes the following features:

- LFG extraction wells (EW-1 through EW-11) installed in 2009 are composed of 6-inch polyvinyl chloride (PVC) pipe, installed in a 30-inch borehole, and backfilled with FDOT No. 4 stone. The borehole was sealed with a hydrated bentonite plug and backfilled to grade with clean soil backfill.
- New LFG extraction wells (EW-12 through EW-18) will consist of 8-inch PVC pipe, installed in a 36-inch borehole, and backfilled with gravel. The borehole will be sealed with a hydrated bentonite plug and backfilled to grade with clean soil backfill.
- New horizontal gas collector trenches in Phases 2 and 3 with remote wellhead connections (HC-1 through HC-4) will consist of 6-inch lateral piping. The horizontal trenches will drain to the north into Phase 3. Horizontal gas collectors will be installed by constructing a horizontal collector pipe surrounded by porous non-carbonate, non-calcareous media and wrapped in a geotextile filter fabric. Porous media may include tire chips, crushed concrete, or gravel as allowed by permit.
- Tie-ins are made to the existing LCRS risers and connected to the header/lateral system, routing LFG to the blower/flare station.
- A below-grade header/lateral network is installed. All piping will be HDPE Standard Dimensional Ratio (SDR) 17.
- A 2-inch HDPE SDR 9 air-supply line is installed at the blower/flare and compressor location to condensate sump (CS)-1 on the east side of the Class I cells .
- CS-2 with a pneumatic pump is installed at the blower/flare station. An O&M manual for the pneumatic pump was submitted to FDEP with the report of construction completion.
- The self-draining condensate traps (CT-1 and CT-2) were abandoned and replaced with one condensate trap (CS-3) with a dedicated pneumatic pump on the west side of Phase 2. The sumps will allow drainage of condensate from the header and lateral system to the leachate storage tanks.

 Collected LFG is routed to the blower/flare station for combustion via the 750 standard cubic feet per minute (scfm) candlestick flare.

If performing video inspection or cleanout of the LCRS via these risers is necessary, it can be accomplished by closing the 2-inch wellhead gate valve, disconnecting the flexible hose, and removing the quick release caps or flanged lids and associated piping. The construction documents contain details of the GCCS.

The gas migration control system installed at the Closed Class I Landfills will be inspected periodically. All components and fittings including wellheads, condensate sump, and blower skid will be visually inspected for damage and/or proper function. The blower station will be operated and maintained according to the manufacturer's specifications. If any problems are identified at the blower station or condensate sump, repairs shall be completed as soon as possible. All maintenance and repair activities will be recorded and filed on site.

Pneumatic pumps will be periodically visually inspected to ensure proper operation by checking the pump counters and recording cycle counts for each pump in operation. The sumps and condensate knockout pot will be visually inspected to determine if the pumps are maintaining liquid levels at low level.

#### K.9.C MONITORING OF ON-SITE STRUCTURES.

To ensure the safety of workers inside and around permanent structures on site, ambient air will be monitored on a quarterly basis in onsite structures in accordance with the requirements of Rule 62-701.530(2)(a), FAC. As stated above, and in Rule 62-701.530(1)(a), FAC, the methane concentration in on- or off-site structures may not exceed 25 percent of the LEL, or 1.25 percent methane by volume. The following gas monitoring will be performed in structures at the facility.

- Explosive gas alarms in the scale house building will provide continuous monitoring for unacceptable concentrations of explosive gas. These monitors are designed to sound an alarm when methane concentrations exceed 25 percent of the LEL. The signal remains on as long as gas is present, and a red alarm light stays on after an alarm condition to alert personnel that methane was detected during their absence. Log sheets will be kept at each location to record when the alarm has been triggered, and each alarm will be calibrated or replaced on a regular basis according to the schedule recommended by the manufacturer.
- On a quarterly basis the following structures will be monitored:
  - Administration building.
  - Scale house.
  - Gun ranges.
  - Modular buildings.
  - Shop.
  - Hazardous waste drop-off center.

Monitoring will consist of using handheld instruments to monitor for combustible gases at all slab penetrations, floor drains, cracks in the slabs, along baseboards, in electrical boxes and outlets, and in enclosed spaces such as closets and ground-level cabinets.

#### K.9.D GAS MONITORING PROCEDURES

#### K.9.D.1 Monitoring Procedures for Probes

Each probe will be monitored on a quarterly basis for static pressure and methane concentration, or combustible gases using an instrument calibrated to methane. Methane will be measured and recorded as percent by volume in air or as a percentage of the LEL. The monitoring equipment will be calibrated each day before monitoring.

The general procedure for monitoring at each probe will be as follows:

- 1. Record meteorological conditions including ambient temperature and barometric pressure.
- 2. Calibrate the methane monitoring equipment.
- 3. Purge any calibration gas or gas from previous probes from the methane monitoring instrument.
- 4. Zero the pressure gauge.
- 5. Before monitoring, note any damage to the probe and repair if necessary. Failure to repair damage to the aboveground casing, cap, or monitoring probe can affect the validity of the monitoring results.
- 6. Attach the sampling hose to the pressure meter and the labcock valve on the monitoring probe.
- 7. Record the time for monitoring with the probe.
- 8. Open the labcock valve.
- 9. Measure and record the pressure in the probe.
- 10. Close the labcock valve.
- 11. Connect the methane monitoring instrument to the sampling hose.
- 12. Open the labcock valve.
- 13. Turn on the meter and observe the gas concentration readings, noting any spikes in concentration.
- 14. After the gas concentration readings stabilize, record the steady-state reading, noting any spike that occurred before reaching a steady-state reading. In accordance with Rule 62-701.530(2)(b), FAC, purging of the probe is not allowed.
- 15. Remove the instrument and hose, and close the labcock valve.
- 16. Repeat steps 3 through 15 for each probe.

Any problems encountered during monitoring, observations, or other pertinent information that could impact the interpretation of the data shall be recorded.

#### K.9.D.2 Monitoring Procedures for On-Site Structures

The following on-site structures will be monitored for methane or combustible gas on a quarterly basis using handheld field instruments in accordance with Rule 62-701.530(2)(a), FAC:

- Administration building.
- Scale house.
- Gun ranges.
- Leachate Treatment Facility.
- Modular buildings.
- Shop.
- Hazardous waste drop-off center.

- Storage Shed.
- Equipment Building.
- Electronics Container.
- Chemical Container #1.
- Chemical Container #2.
- Paints.

Methane will be monitored and recorded as percent by volume in air or as a percentage of the LEL, and the monitoring equipment will be calibrated each day before monitoring.

The general locations for monitoring at each structure will be as described below:

#### **Administration Building**

A handheld meter will be used to monitor for methane at each of the following locations:

- Along the baseboards in each of the rooms, closets, and hallways.
- In all ground-level cabinets.
- At the floor drains in the bathrooms.
- At all electrical outlets in each room and hallway.
- At electrical panels inside and outside the building.
- At outdoor electrical outlets.

#### Scale House, Modular Building, Shop, Equipment Building, and Storage Shed

A handheld meter will be used to monitor for methane in the scale house, modular building, shop, equipment building, and storage shed at each of the following locations:

- Along the baseboards.
- At any cracks in the concrete slab or flooring.
- In all ground-level cabinets.
- At all electrical outlets inside and outside the building.
- At electrical panels inside and outside the building.

## Hazardous Waste Drop-off Center, Leachate Treatment Facility, Chemical Containers, Electronics Containers, and Paint Containers

Methane concentration will be checked at the following locations at the hazardous waste drop-off center, leachate treatment facility, chemical containers, electronics containers, and paint containers:

- At any cracks in the concrete slab or flooring.
- In any ground-level cabinets.

- At all electrical outlets inside and outside the building.
- At electrical panels inside and outside the building.

## **Gun Ranges**

Two gun ranges are on site that are operated by the Withlacoochee Technical Institute on the closed 60-acre landfill. Both gun ranges will be monitored for methane at the following locations:

- At cracks in the concrete slabs.
- At all electrical outlets and switches.
- At all slab penetrations, such as support posts for the roofs of the firing platforms.

### K.9.E REPORTING

Results of the monitoring will be reported to FDEP quarterly. Appendix G to this plan includes a copy of the monitoring form.

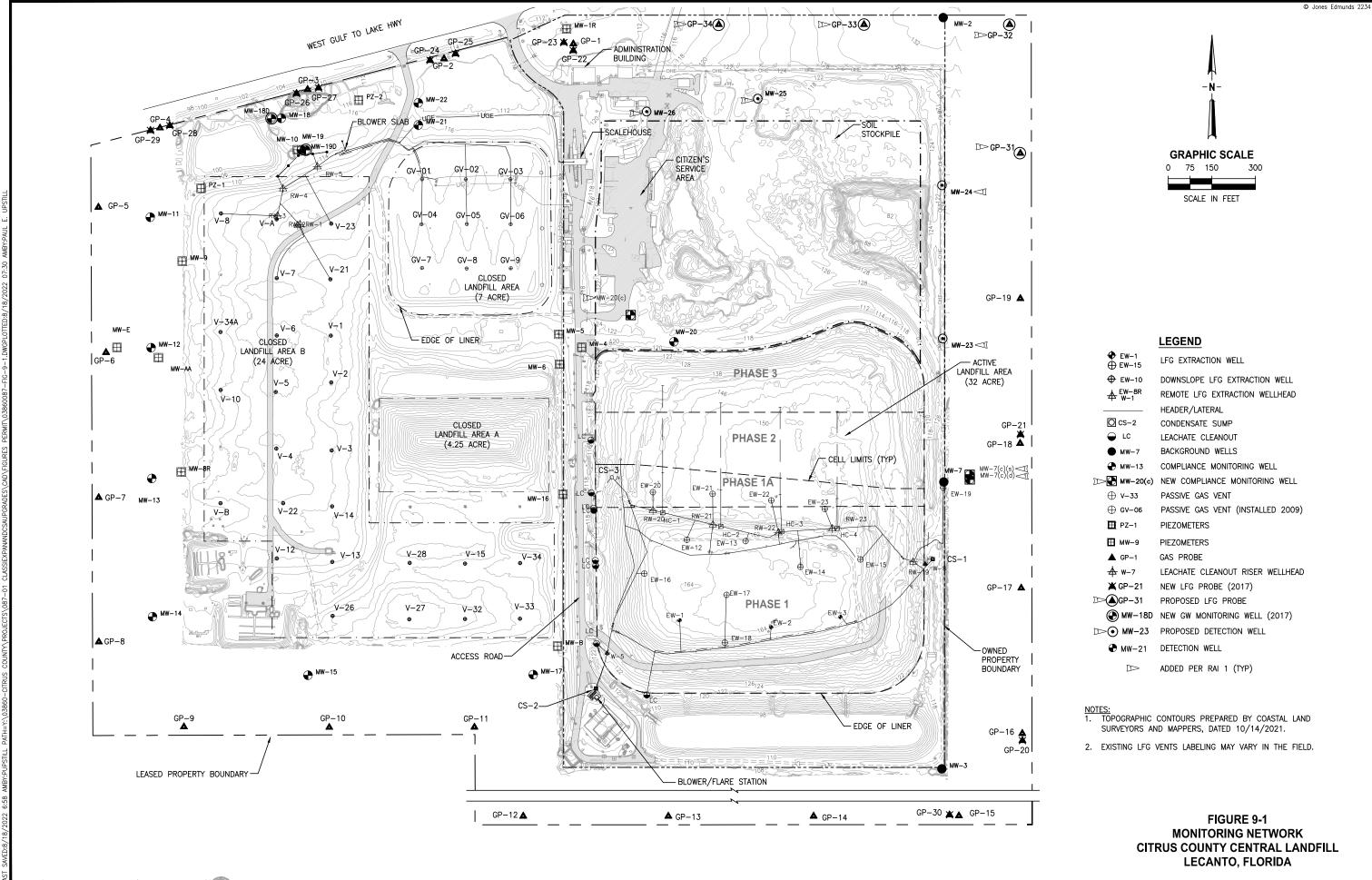
If the results of the monitoring show that combustible gas concentrations exceed the limits specified in Rule 62.701.530(1)(a), FAC, the County will take the following actions:

- Immediately take all necessary steps to ensure protection of human health and notify
   FDEP of the exceedances.
- Within 7 days of the detections, submit a gas remediation plan to FDEP for approval. The gas remediation plan must describe the nature and extent of the problem and the proposed remedy. The remedy must be completed within 60 days of detection unless otherwise approved by FDEP.

### K.9.F ROUTINE ODOR CONTROL

The site is inspected on a daily basis for odors at the point of compliance. Potential sources for odors include: incoming waste, workface activities, landfill gas, condensate systems, and leachate collection and handling systems. If an odor is detected and a source identified, appropriate steps will be taken to mitigate the incident. The installation of the GCCS should eliminate odors generated by the decomposition of waste.

Deodorants and odor neutralizers will be acquired and used within 48 hours of an odor complaint if soil cover does not mitigate the odor issues at the working face. Daily cover provides an effective seal against odors. If odors persist, daily cover will be increased and cover procedures will be reviewed and altered if necessary.



**JonesEdmunds** 

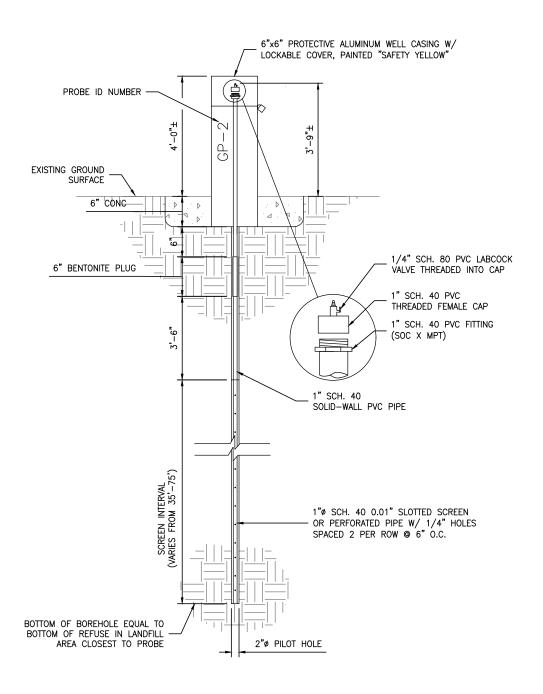


FIGURE 9-2 LFG MONITORING PROBE DETAIL CITRUS COUNTY CENTRAL LANDFILL LECANTO, FLORIDA

## K.10 STORMWATER MANAGEMENT SYSTEM AND MAINTENANCE (Rule 62-701.500(10), FAC)

The stormwater management system will be operated and maintained as necessary to meet the requirements of Rule 62-701.400(9), FAC.

## K.10.A STORMWATER BEST MANAGEMENT PRACTICES

The landfill will use the following stormwater best management practices (BMPs):

- Side swales.
- Grass.
- Sod.
- Down drains.
- Benches.
- Dry retention stormwater ponds.
- Pumps to transport stormwater.
- Lined ditches.

Many of these stormwater management systems were constructed during development of Phases 1 and 2 of the CCCL. Plans and cross-sections of these systems, including as-built drawings and modifications, are on file with the FDEP Southwest District office. Additional stormwater management systems were installed as part of the Phase 3 expansion. Record drawings of the Phase 3 expansion were submitted with the construction certification upon completion of the project. For Phase 4, additional swales and an additional stormwater pond north of the new phase will be constructed.

## K.10.B STORMWATER MAINTENANCE PROCEDURES

The stormwater management system O&M will include the following:

- All stormwater conveyance systems will be inspected periodically or after major storm events.
- Any damaged systems will be repaired.
- Accumulated sediment will be removed as necessary.
- All stormwater pumps will be serviced as specified by the pump manufacturer.

### K.10.C SURFACE DRAINAGE STRUCTURES

During operation of the facility, the County will install portions of the stormwater drainage features as shown on the Operations Drawings as interim drainage-control measures. The interim control measures shall include piping, inlet structures, and energy dissipaters as identified on the Operations Drawings. The piping and inlet boxes will be removed and reinstalled as part of final closure construction. The Filling Sequence Plan of the Operations Drawings shows the timing for installing interim drainage measures.

## K.11 EQUIPMENT AND OPERATION FEATURES (RULE 62-701.500(11), FAC)

## K.11.A EQUIPMENT (RULE 62-701.500(11)(A), FAC)

The County owns a diverse mix of equipment to spread, compact, and cover the waste in the CCCL. While the equipment at the landfill may vary, sufficient equipment will be maintained at the site to ensure proper operation of the landfill. A current list of equipment is as follows:

- One landfill compactor.
- One excavator.
- One bulldozer.
- Two wheel loaders.
- One water truck.
- One fuel truck.
- One articulated dump truck.
- One skid steer.

In addition, the site will have auxiliary vehicles including:

- One roll-off truck.
- Several pickup trucks.
- Several utility vehicles.
- Several trailers.

Normal maintenance will be performed on site. Major maintenance item repairs (e.g., engine, transmissions, auxiliary drives) will be performed at the maintenance facilities or at off-site service facilities.

## K.11.B RESERVE EQUIPMENT (RULE 62-701.500(11)(B), FAC)

The County has arrangements with suppliers to obtain reserve equipment within 24 hours of equipment breakdown if sufficient equipment is not available to properly operate the CCCL.

## K.11.C COMMUNICATION EQUIPMENT (RULE 62-701.500(11)(c), FAC)

Landfill employees will be able to communicate by two-way radios, and a telephone is at the scale house and Administrative Office.

## K.11.D DUST CONTROL (RULE 62-701.500(11)(D), FAC)

Control of dust will be maintained by wetting roads as necessary with a 1,200-gallon water tank truck.

## K.11.E FIRE PROTECTION AND FIRE FIGHTING CAPABILITIES (Rule 62-701.500(11)(E), FAC)

The daily soil cover aids in fire prevention at the CCCL. The main method of fire extinguishing is to apply soil to the burning waste using a dozer. Ample soil is stockpiled on site if needed for fire extinguishing purposes. The facility is surrounded by a drainage ditch and road that would act as a firebreak protecting the adjacent forest. In addition to soil

stockpiles, two fire hydrants are at the site, one in the citizen drop-off area and one near the fill area.

All equipment and vehicles at the landfill will be equipped with fire extinguishers, and all personnel will be trained in their use. All extinguishers will be inspected regularly and repaired or replaced as needed.

Emergency services are notified by telephone using 911.

## K.11.F LITTER CONTROL DEVICES (Rule 62-701.500(11)(F), FAC)

Daily cover will provide the main litter control. When the active area of the landfill is below the ground surface, litter is not expected to be a problem. When the active area is above the ground surface, the perimeter ditch and fence will provide a barrier to blowing litter. In addition, portable and/or temporary litter fences will be located adjacent to the working face to prevent litter from being blown away from the working area.

## K.11.G SIGNS (RULE 62-701.500(11)(G), FAC)

Appropriate signs will be used and maintained to ensure maximum safety, efficiency, and general information. Signage will include, at a minimum, facility name and operating authority, traffic flow, hours of operation, disposal rates, and restrictions or conditions of disposal.

## K.12 ROADS (RULE 62-701.500(12), FAC)

## K.12.A ALL-WEATHER ACCESS ROAD (RULE 62-701.500(12)(A), FAC)

All-weather roads, passable and safe under normal operating conditions, will be maintained to prevent dust, rutting, or loss of traction. The facility access roads are surfaced with asphaltic concrete. Figure ES-1 shows the locations of the access and perimeter site roads.

## K.12.B Perimeter and Other On-Site Roads (Rule 62-701.500(12)(B), FAC)

Some perimeter roads and internal roads will be constructed of limerock and/or stabilized soils. These roads will be inspected daily and repairs will be made in a timely manner. Limerock roads will be scraped and smoothed with a road grader or dozer as necessary. When needed, roadways will be wetted to control dust and to ensure high visibility. On-site roads will be maintained to allow access to monitoring devices and stormwater controls, for landfill inspections, and fire fighting.

## K.13 ADDITIONAL RECORDKEEPING AND REPORTING (RULE 62-701.500(13), FAC)

## K.13.A PERMIT APPLICATION DOCUMENTATION (Rule 62-701.500(13)(A), FAC)

Records of all information used to develop or support the permit applications and any supplemental information submitted to comply with Rule 62-701, FAC, pertaining to construction of the facility will be kept throughout the life of the facility. Records pertaining to the operation of the landfill will be kept for the life of the facility.

## K.13.B Monitoring Information (Rule 62-701.500(13)(B), FAC)

Records of all monitoring information, including calibration and maintenance records and copies of all reports required by permit, will be retained for at least 10 years. Background water-quality records will be kept for the life of the facility.

## K.13.C REMAINING LIFE AND CAPACITY ESTIMATE (Rule 62-701.500(13)(c), FAC)

The landfill will maintain an annual estimate of the remaining life and capacity (in cubic yards) of the existing constructed landfill and the remaining capacity and site life of other permitted areas not yet constructed. The annual estimate will be based on a summary of the heights, lengths, and widths of solid waste disposal units. The estimate will be made and reported annually to FDEP as part of the annual update to the closure and long-term care cost estimates.

## K.13.D ARCHIVED RECORDS (Rule 62-701.500(13)(d), FAC)

The landfill may archive records that are more than 5 years old, if necessary. Archived records will be available for inspection within 7 days of the receipt of the request.

# Appendix A Emergency Incidents and Contingency Plan

## CITRUS COUNTY CENTRAL LANDFILL

230 W. Gulf to Lake Highway, Lecanto, Florida

## EMERGENCY INCIDENT PLAN

## Life and Safety: CALL 911 Other Emergencies:

Step 1. Call Administrative Office via radio or cell phone Landfill Office: 352-527-7670

**Step 2: Environmental Response Coordinator** 

<b>Primary Contact</b>	Alternate Contact
Dan Sherlock	Harold Gravely
Work: 352-527-5570	Work 352-527-7670
Cell: 352-302-3437	Cell: 352-400-0612

## **Evacuation Procedures:**

Primary Rally Point – Administrative Office Secondary Rally Point – Staff Parking Lot

## CITRUS COUNTY CENTRAL LANDFILL EMERGENCY INCIDENTS AND CONTINGENCY PLAN

The Citrus County Central Landfill and Related Facilities

For Citrus County, Florida

230 W. Gulf to Lake Highway

Lecanto, Florida 34461

### **Commissioners:**

Jeff Kinnard, County Commission District 1
Ronald Kitchen Jr., County Commission District 2
Ruthie Schlabach, County Commission District 3
Scott Carnahan, County Commission District 4
Holly Davis, County Commission District 5

## **Administration:**

Randy Oliver, County Administrator

## **County Attorney**

Denise Dymond Lyn

## **Department of Public Works**

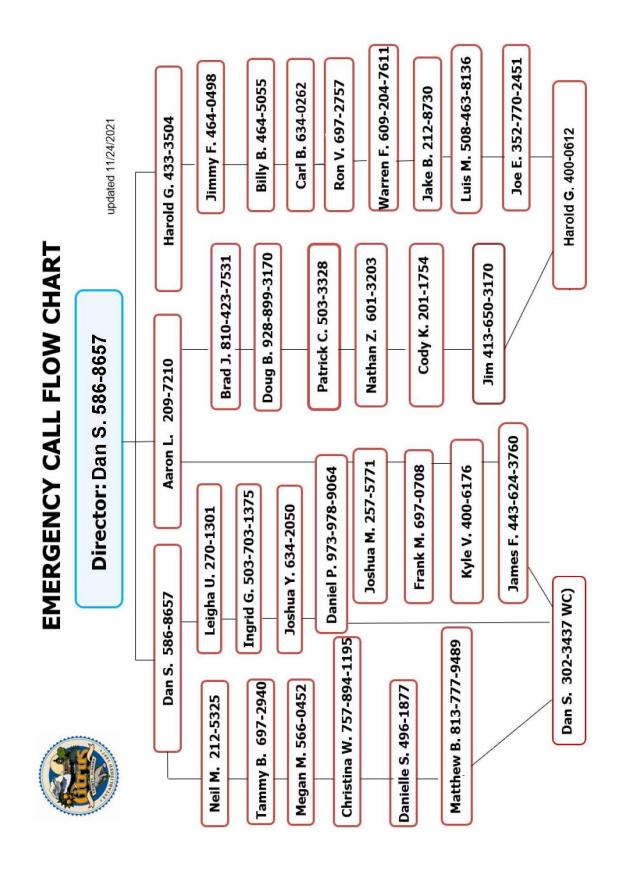
Public Works Director

## **Solid Waste Management Department**

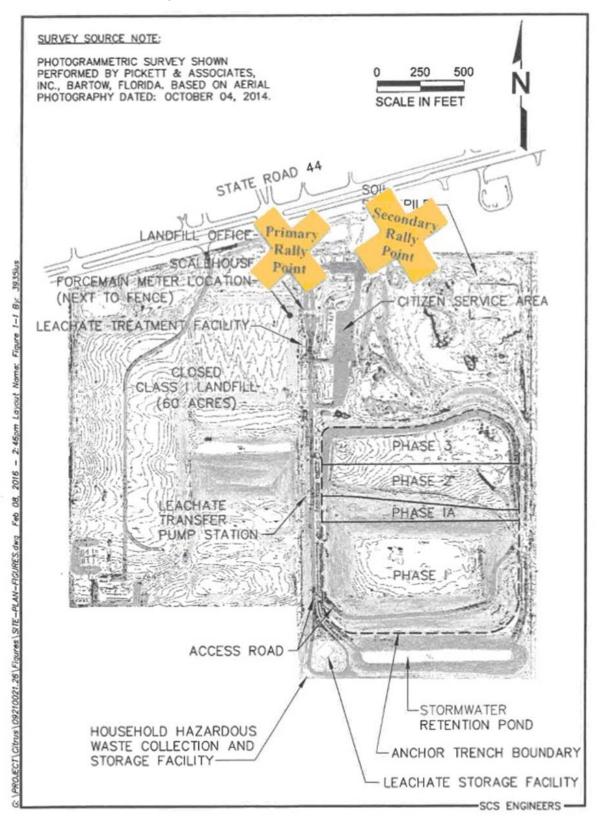
Dan Sherlock, Director

Citrus County Solid Waste Management Department

Citrus County Central Landfill



## **Site Plan, Citrus County Central Landfill**



## CITRUS COUNTY SOLID WASTE MANAGEMENT DEPARTMENT FACILITIES

Citrus County Central Landfill Active 80-Acre Site

Citrus County Central Landfill Closed 60-Acre Site

Citrus County Operations Maintenance Building/Diesel Fuel Facility

Citrus County Waste Separation Facility – "Citizen Service Area"

Citrus County Hazardous Waste Collection Center and Storage Facility

## **TABLE OF CONTENTS**

1	_	RPOSE AND SCOPE 1-	
2	PRI	EPAREDNESS 2-	1
3	EM	ERGENCY RESPONSE COORDINATOR/TEAM3-	1
4	SOI	LID WASTE MANAGEMENT STAFF LIST4-	1
5	PRI	EVENTING EMERGENCY INCIDENTS5-	1
	5.1	Scalehouse Operation Facility 5-	1
	5.2	Operations Maintenance Building and Diesel Fuel Facility 5-	1
	5.3	Waste Separation Facility – Citizen Service Area (CSA) 5-	1
	5.4	Methane Gas Collection System 5-	1
	5.5	Hazardous Waste Collection and Storage Facility 5-	1
6	IDE	ENTIFYING EMERGENCY INCIDENTS6-	1
7	COI	NTINGENCY PLANS7-	1
	7.1	Fire	1
	7.2	Explosion	1
	7.3	Uncontrolled Leaks or Spills	2
	7.4	Personal Injuries	2
	7.5	Approaching Hurricanes or Tornadoes	2
	7.6	Lightning Strikes	3
	7.7	Temporary Transfer Station	4
	7.8	Other Miscellaneous Emergency Incidents	4
8	NO	TIFICATION PROCEDURE8-	1
9	COI	NTINGENCY EQUIPMENT AND SUPPLIES9-	1
10	O EVA	ACUATION PROCEDURES10-	1
1:	1 CLE	EANUP AND DECONTAMINATION11-	1
12	2 FOI	LLOW UP REPORTING12-	1
13	3 SIT	E LAYOUT13-	1
	.IS	T OF TABLES	
	able 1 able 2	Outside Agency Emergency Contact Information	

## **LIST OF FIGURES**

Figure 1 Figure 2	Emergency Call Flow Chart	
APPE	NDIC	ES
Appendix 1		Operations Maintenance Building and Diesel Fuel Facility: Material Listing and Quantities
Appendix 2		Citizen Service Area: Material and Maximum Site Capacity
Appendix 3		Methane Gas: Hazard Management Summary
Appendix 4		Hazardous Waste Facility Emergency Incidents and Contingency Plans
Appendix 5		Waste Tire Storage/Processing Facility Emergency Plan

Table of Contents

## 1 PURPOSE AND SCOPE

This plan provides information and guidance for managing emergency incidents that could affect the Citrus County Central Landfill Site(s) and to adopt those contingency plans that would avoid, mitigate, or lessen the severity of the situation.

## **2 PREPAREDNESS**

Local authorities have been notified and should be kept apprised of the operations at the Citrus County Central Landfill Site at 230 West Gulf to Lake Highway, Lecanto, Florida. A site diagram should be provided to them together with a copy of the contingency plan for all revisions.

A current copy of this plan should be maintained at the Central Landfill Administrative Office and at the Hazardous Waste Collection Center. The Citrus County Department of Fire/Rescue, the Department of Public Works, and the Sheriff's Office should be given access to the Solid Waste Management (SWM) Department Central Facility.

If contacting an outside agency or department becomes necessary, use the following information:

**Table 1** Outside Agency Emergency Contact Information

Type of Emergency	Contact Department	Contact Phone Number
Emergency	Emergency Response 3425 West Southern Street Lecanto, Florida 34461	Emergency - DIAL 911
Emergency Medical	Nature Coast EMS 3876 W. County Hill Drive Lecanto, Florida 34461	<b>Emergency – DIAL 911</b> 352-249-4700
Law Enforcement	Citrus County Sheriff's Office 1 Dr. Martin Luther King Jr. Avenue Inverness, Florida 34453	<b>Emergency – DIAL 911</b> 352-726-4488
Fire and HazMat	Citrus County Department of Fire/Rescue 3600 W. Sovereign Path Lecanto, Florida 34461	Emergency - DIAL 911 352-527-5406
Hospital	Citrus Memorial Hospital 502 West Highland Boulevard Inverness, Florida 34453	Emergency - DIAL 911 352-726-1551
Environmental	Department of Agriculture and Consumer Services Division of Forestry 15019 Broad Street Brooksville, Florida 33512	352-797-4140
	Department of Environmental Protection Division of Waste Management 13051 N. Telecom Parkway Tampa, Florida 33637	813-470-5700

Every effort should be made to operate the SWM facilities safely. All the necessary materials to contain or mitigate small spills, fires, or releases should be inspected and maintained on site as outlined in the emergency supplies list. The tools, equipment, and materials to clean up all residues should also be available. Daily supplies of material should be used to contain and cleanup any de minimis releases during normal operation. Good housekeeping will support a safer work environment.

## FLORIDA STATE WARNING POINT

The mission of the State Warning Point Watch Office is to provide the people of the State of Florida and the Division of Emergency Management with efficient and effective communications during normal periods as well as pre-and-post disaster periods and to serve as the contact point in Florida for communications between local Governments and Emergency Agencies, State Government Agencies, and the Federal Government.

## **GENERAL INFORMATION**

800-320-0519

## **SPILLS**

800-320-0519 or 866-742-0481

- Petroleum Spill Reportable Quantities:
  - Soil: Spills more than 25 gallons.
  - Surface Water: All spills regardless of quantity.
- Release Notification Period: Within 24 hours.
- Written Report: Yes Discharge Report Form.

## **3 EMERGENCY RESPONSE COORDINATOR/TEAM**

## PRIMARY - DANIEL SHERLOCK, DIRECTOR

Phone: Work 352-527-7670

Direct 352-527-5570 Work Cell 352-302-3437

## ALTERNATE - HAROLD GRAVELY - OPERATIONS CREW LEADER, OPERATIONS

Phone: Work 352-527-7670

Direct 352-527-5575 Work Cell 352-400-0612

## **EMERGENCY RESPONSE COORDINATOR OPERATIONS**

If local emergency response agencies are called, the first arriving emergency response company should establish Incident Command. The Incident Commander in charge should implement and expand, as necessary, the incident command structure.

The SWM Emergency Response Coordinator (ERC) and Secondary Coordinators should comprise the Facility's Emergency Response Team (ERT). As necessary, the Coordinators and ERT should assist and be under the direction of the existing command structure. During large scale emergency operations, the SWM ERC and ERT may serve as or assign an individual to serve as part of a Unified Command Staff.

## **4 SOLID WASTE MANAGEMENT STAFF LIST**

Table 2Solid Waste Management Staff List

Department	Name	Title
Administration	Dan Sherlock Ingrid Grutter Joshua Younce Matthew Baer	Solid Waste Director Administrative Coordinator Operations Manager Compliance Manager
Programs	Dan Sherlock Leigha Utter Joshua McMinds Frank Marallo Kyle Vancamp James Flaherty Doug Bemus Patrick Collins Nathan Zolman Cody Knippen James Belanger	Solid Waste Director Customer Service Specialist Program Supervisor Hazardous Waste Specialist Hazardous Waste Technician Hazardous Waste Technician Litter Supervisor Maintenance Worker Maintenance Worker Maintenance Worker Maintenance Worker
Maintenance	Aaron Lake Brad Johnson Jake Brisbin	Landfill Maintenance Supervisor Equipment Services Worker Light Equipment Operator
Scale House	Neil Maves Tammy Bagley Megan Malicoate Christina Williams Danielle Steen	Solid Waste Supervisor Lead Solid Waste Technician Solid Waste Technician Solid Waste Technician Solid Waste Technician
Landfill Operations	Harold Gravely James Fuller Carl Ballard Billy Black Warren Foster Ron Vogel Luis Rivera William "Joe" Eaton	Operations Crew Leader Lead Heavy Equipment Operator Medium Equipment Operator Medium Equipment Operator

## **5 PREVENTING EMERGENCY INCIDENTS**

Operations should be conducted at the Central Landfill facilities that maximize worker and environmental safety while minimizing negative impacts to the environment, the facility, and fellow workers. No smoking should be permitted in the facility's designated compound areas and access should be restricted to authorized personnel in some areas as needed. NO SMOKING signs should be posted in areas around the facilities. Safety and operations plans should be followed at all times.

## 5.1 SCALEHOUSE OPERATION FACILITY

The enclosed portion of the scalehouse is fitted with a methane gas alarm. Fire extinguishers are located at this location. During an alarm, the ERC should be contacted. An emergency eyewash and shower facility is at the leachate treatment facility. Appendix 1 details materials and maximum site capacity.

## 5.2 OPERATIONS MAINTENANCE BUILDING AND DIESEL FUEL FACILITY

Fire extinguishers are in the maintenance building and at the diesel fuel facilty. Appendix 1 details materials and maximum site capacity.

## 5.3 Waste Separation Facility - Citizen Service Area (CSA)

Fire extinguishers are at the furniture collection site, rimmed tire collection site, and oil collection site, which proximate to the wood waste storage site. The CSA is outfitted with an emergency water shower and eye-wash station. Appendix 2 details materials accepted and maximum site capacity.

### 5.4 METHANE GAS COLLECTION SYSTEM

Methane gas is a natural by-product of municipal solid waste decomposition. The active gas collection system is designed and operated to collect and destroy flammable gases. Landfill gas is collected at the active landfill and destroyed at the flare. The leachate collection system is connected to the active gas collection system. The flare system has automatic shut-offs and can also be shut down manually. Landfill gas at the closed cells is primarily vented passively. As part of the landfill gas mitigation project, several of the passive vents at the closed site were connected to a small blower and flare system; this system is to actively pull gas from the closed cells to avoid the gas from entering groundwater. Appendix 3 summarizes methane gas hazard mitigation.

## 5.5 HAZARDOUS WASTE COLLECTION AND STORAGE FACILITY

The Hazardous Waste Collection Center is equipped with inside and outside storage, fusible-link fire extinguishment systems, and portable BC and ABC extinguishers. The facility is also equipped with an emergency water shower and eye-wash station. Appendix 4 provides specific emergency information.

## **6 IDENTIFYING EMERGENCY INCIDENTS**

The following situations should be considered emergencies:

- 1. Fire or smoke.
- 2. Explosion.
- 3. Serious leak or spill.
- 4. Personal injury/medical emergency.
- 5. Approaching hurricanes or tornadoes.
- 6. Any other incident which requires immediate attention, such as but not limited to:
  - a. Vehicle accident.
  - b. Vehicle disruption.
  - c. Incidents that could disrupt the service of this facility.

## 7 CONTINGENCY PLANS

Whenever a perceived or actual emergency situation occurs, the person who recognizes the emergency should notify the SWM Administrative Office via radio or cellphone, who should advise the ERC. If the primary ERC is not available, an alternate ERC should be notified. The ERC should be responsible for implementing contingency plans. If necessary, the ERC should notify all facility personnel and provide for their response, safety, and/or evacuation. If necessary, the ERC should implement the notification plan and/or evacuation plan. The ERC should direct staff regarding response procedures as the situation requires.

The ERC should assess possible hazards to human health or the environment that may result from any spill, release, fire, or explosion. This assessment should consider the direct and indirect impact to such entities.

During and emergency, the ERC should take all reasonable measures necessary to ensure that fire, explosions, spills, and releases do not occur, reoccur, or spread to other parts of the facility.

## **7.1 FIRE**

The person who recognizes the emergency should also notify the Administrative Office via radio/cellphone, who should advise the ERC. If the primary ERC is not available, an alternate ERC should be notified. The ERC should determine whether outside agencies need to be contacted and if so, dial 911.

During a small fire, the personnel discovering the fire should determine whether they have the proper training and if the fire could be extinguished safely and quickly with the available fire extinguishers. The first consideration should be the safety of all people within the facility.

If a fire is in the chemical holding area of the Leachate Treatment Facility or in the area of the Hazardous Waste Collection Facility, an initial determination should be made concerning the safety of responders or response actions. If a fire is inside a building, the doors of the building should not be opened.

Regardless of whether staff or Fire/Rescue has been used to extinguish a fire, the Citrus County Fire/Rescue should be called to complete a Florida Fire Incident Report. During a trash fire that requires offsite assistance, the Operation Plan shall be implemented and the event shall be reported to the Florida Department of Environmental Protection (FDEP).

## 7.2 EXPLOSION

If an explosion occurs, the person who recognizes the emergency should also notify the Administrative Office, via radio/cellphone, who should advise the ERC. The ERC should determine whether the facility should be evacuated and outside agencies contacted. Life or property should never be put in peril while attempting to handle explosions.

## 7.3 Uncontrolled Leaks or Spills

During an uncontrolled leak or spill, the personnel discovering the leak or spill should take the following actions if it is safe to do so:

- Notify the Administrative Office via radio/cellphone, who can advise the ERC.
- Ensure the safety of personnel in the area.
- Eliminate sources of ignition.
- Stop the flow of any material or gas leak at the source.
- Contain the leak or spill.

The ERC should direct facility staff regarding response procedures as the situation requires. Actions may include but not be limited to:

- Evacuate area as needed.
- Initiate actions to notify local authorities, emergency response agency, and government agencies as needed.

Identify the spilled material, check available Material Safety Data Sheets or Safety Data Sheets, and consult the Emergency Response Guide procedures. Action may include but not be limited to:

- Confirm that additional personnel have been assigned to stop the flow of the spilling product and secure leaks if it can be done safely.
- Assess the spill threat, site safety, and parameters such as spill volume, extent, and direction of movement.
- Follow up on containment efforts.
- Establish a Hot Zone and Cold Zone/Safe Work Area.
- Initiate clean up actions after the spill has been investigated and if it can be done safely.
- Follow clean/decontamination procedures outlined in Part 12.

## 7.4 Personal Injuries

The personnel discovering the injured party should take the following actions:

- Notify the Administrative Office via radio/cellphone, who should advise the ERC.
- Determine whether the injured party needs assistance.
- Apply first-aid in accordance with the caregiver's level of training or willingness to provide Good Samaritan treatment.

## 7.5 Approaching Hurricanes or Tornadoes

The Florida Division of Emergency Management flood maps show that the SWM facility is above the elevation and outside the Storm Surge Level of a Category 5 hurricane. If ordered to evacuate, the ERC should notify staff of the actions to take, where to safely evacuate, or the location of an alternative meeting site if the facility becomes severely damaged or inaccessible.

Before hurricane season during June through November, the ERT should survey facility structures to determine whether any improvements should be made for facility safety. Staff

should be apprised of actions they can take to make their workplace more weathertight and secure from wind and water damage. When a hurricane is approaching the facility, staff should:

- Maintain and monitor a National Oceanic and Atmospheric Administration (NOAA)
   Weather Alert Radio in the office.
- Plan for a means of on-site communication if cell-towers or portable radios are disrupted.
- Ensure that each employee understands the SWM call-down procedure for warning and post-storm communications.
- Secure buildings, cover windows, and move integral equipment to a secured area.
- Secure or move hazardous waste equipment, drums, cubes, and personal protective equipment (PPE) to a secure area.
- Clear property or tie down any items that could become flying missiles in high wind,
   e.g., scrap metal, tires, cubic yard boxes, and trash cans.
- Fill portable gas tanks, fleet vehicles, and equipment gas tanks and generators; check oil, water, and tires. Fuel pumps will not operate without electricity.
- Take important documents, files, backup tapes, emergency contact information, etc., to a safer location.
- Ensure each employee has a photo ID and an authorization tag for returning to their residence and to locate to their authorized work location.
- Contact commercial customers and suppliers and share the communications and recovery plan in advance.
- Prepare a list of and make contact with vendors to provide disaster recovery services before they obtain an agreement or contract with other businesses.
- If evacuation is advisable, turn off unnecessary electricity, water, and gas.
- Unplug all valuable electrical, computerized, and electronic devices; elevate to a level not susceptible to water damage.
- Double-bag and elevate paperwork that will not be moved.
- Close the facility in sufficient time to allow employees to secure their homes, obtain needed supplies, and temporarily evacuate, if necessary.
- After the storm passes, use caution before entering the facility. Check for downed powerlines, structural damage, and uncontrolled leaks or spills. If any electrical equipment is wet, contact an electrician. Prepare loss information for insurance claims and obtain independent estimates of damages. Take photographs.
- When power is lost, do not connect a portable generator to building wiring. (This could kill or injure neighbors or electrical crews.)
- Beware of snakes, insects, or animals driven to higher ground by flooding.

### 7.6 LIGHTNING STRIKES

The potential for lightning strikes in Florida is high; therefore, the following safety rules shall be followed:

- Postpone outdoor activities if thunderstorms or lightning are imminent.
- If an employee, community service worker, or other individual is in an area without shelter, staff should check on and assist the member to safety.

- If thunder is heard, seek shelter. Move to a sturdy building or vehicle.
- Do not take shelter in a small shed or under isolated trees.
- Avoid bodies of water or facility fencing.
- Follow the 30-30 Rule:
  - **30 Seconds:** Count the seconds between seeing lightning and hearing thunder. If this time is less than 30 seconds, lightning is an imminent threat. Seek shelter immediately.
  - **30 Minutes:** After hearing the last clap of thunder, wait 30 minutes before leaving shelter. Half of all lightning deaths occur after the storm passes.

## 7.7 TEMPORARY TRANSFER STATION

Citrus County will implement a temporary transfer station if any condition prevents normal disposal operations at the landfill for more than 48 hours. This temporary transfer station will be on top of the existing lined landfill. The transfer station will be constructed as a splitgrade facility. Waste collection trucks will unload on the upper level. A front loader will lift the off-loaded waste and place into a transfer vehicle on the lower level. The transfer trucks will be weighed before leaving the site to ensure that they are legal for over-the-road transport. Crushed concrete and asphalt will be used as an operating surface. This provides an area for trucks to unload. Sloping the area away from the tipping area to a perimeter berm will provide drainage. This liquid will be allowed to percolate into waste or be collected. Collected liquid will be pumped to the leachate storage tank. Precipitation that falls outside the perimeter berm will be managed as stormwater. Litter fences will be placed around the facility to reduce the potential for blowing litter. The temporary transfer station will not be operated for more than 30 days unless additional approval is granted from FDEP. The County has a reciprocal agreement with Hernando County for emergency access to the disposal facilities should the need arise. Appendix B of the Operation Plan contains a copy of the interlocal agreement.

## 7.8 OTHER MISCELLANEOUS EMERGENCY INCIDENTS

For any other perceived, imminent, or actual emergency situation, the person who recognizes the emergency should notify the Administrative Office via radio or cellphone, who should advise the ERC. The ERC should take responsibility for implementing the contingency plans. If necessary, the ERC should notify all facility personnel and provide for their evacuation; the notification plan should be implemented. The ERC should advise staff regarding response procedures as the situation requires.

The ERC should assess possible hazards to human health or the environment that may have resulted from any release, fire, or explosion. This assessment should consider the direct and indirect impacts. During an emergency, the ERC should take all reasonable measures necessary to ensure that fire, explosions, and releases do not occur, reoccur, or spread to other parts of the facility.

## **8 NOTIFICATION PROCEDURE**

Whenever an imminent or actual emergency situation arises, the person who recognizes the emergency should notify the Administrative Office via radio/cellphone, who should advise the ERC. If the primary ERC is not available, an alternate ERC should be notified.

The assigned ERC is responsible for implementing the contingency plans. If necessary, the ERC should notify all facility personnel and provide for their evacuation. Generally, the most expedient method of notification is by two-way radio. The ERC should direct the facility staff in response procedures, staging areas, or evacuation routes as the situation requires.

03860-087-01 April 2022

## 9 CONTINGENCY EQUIPMENT AND SUPPLIES

## LANDFILL EQUIPMENT

- Olympian 150KW Generator Trailer-Mounted.
- Deere 850 LWH Dozer
- Acme 691 Hydraulic Driven
   Submersible Pump System 61 HP
- Yanmar Transfer Centrifugal Trash
   Pump 6-Inch
- CAT P6000 Diesel Forklift
- Ford F-250 2WD Pickup Truck
- Ford F-250 2WD Pickup Truck
- Mac Roll-Off Truck
- Ford Escape XLS SUV
- Chevy Silverado Pickup Truck
- Pro-Tainer Recycling Trailer,
   Dump 10 + cy
- Loudo Dump Trailer, Tandem Axle 8 x 14
- Ford Ranger 4 x 4 Pickup Truck
- Hurds Custom Ammo/Fireworks
   Disposal Trailer
- Volvo Front End Loader (3-Year Lease)
- Volvo L110 Front End Loader (3-Year Lease)
- Volvo Articulated Dump Truck
- Ford Ranger Single Cab 4 x 4 Pickup Truck
- Bobcat T630 Track Loader (Skid Steer)
- Bobcat Broom Attachment
- Kubota All-Terrain Vehicle
- Toro Z595-D Master Mower

- FINN LF-120 Landfill Sprayer (ADC)
- Freightliner Water Truck w/2,500-gallon tank
- TSI TC-350 Wheel Crusher (Tire De-Rimmer)
- Kubota All-Terrain Vehicle
- Kubota All-Terrain Vehicle
- Kubota All-Terrain Vehicle
- EZ-Pull Utility Trailer
- EZ-Pull Utility Trailer (Litter Crew)
- Kubota Tractor
- Kubota Batwing Mower
- LubeMate Lube Trailer
- Generac Dayton 20KW Generator Stationary (Fuel Pumps/Shed)
- Generac 40 KW Generator Stationary
- Doosan 6KW Portable Lite Tower
- Ford 1/2-Ton Extended Cab Pickup
- Ford F-250 Pick Up 2SD
- Freightliner Roll Off Truck w/30-cy Dumpster
- Kut Kwick Slope Mower
- Volvo LC450H Landfill Compactor
- Volvo L110 Front End Wheel Loader
- Utility Trailer 7000 GVWR 3.5 Tones
- Tire Grapple Attachment
- Fork Attachment
- Hydraulic Driven Submersible Pump
- Hot Pressure Washer
- Homemade Trailer

## **CONTINGENCY SUPPLIES AT THE HAZARDOUS WASTE COLLECTION CENTER**

### **SUPPLIES**

- Shovels
- Broom
- Squeegee
- ABC and BC Fire Extinguishers
- Bung Wrenches
- Hand Tools and Wrenches

- First Aid Kit
- PVC Hand Drum Pump (Water and Corrosives)
- Rotary Drum Pump (Solvent-Safe Pump)
- pH Testing Tape

- Poly, 65-Gallon Overpack Drum
- Poly, 30-Gallon Overpack Drum
- Metal, 55-Gallon Drums
- Poly, 55-Gallon Drums
- Poly, 5-Gallon Pails
- Scrub Brushes

- Poly Sheeting
- Emergency Eye Wash and Shower Station
- Drum Wrenches
- Drum Labeling Material

### **MATERIALS**

- Tube Sock Absorbent
- Vermiculite, Bagged Absorbent
- Abzorbit, Bagged Absorbent

## PERSONAL PROTECTION EQUIPMENT (PPE)

- Chemical Resistant Aprons
- Chemical Resistant Coverall
- Chemical Resistant Shoe Covers
- Chemical Resistant Smocks
- Personally-Issued Hardhats
- Both Neoprene and Nitrile Gloves

- General Purpose Absorbent Pads Oil
- Absorbent Pads and Socks
- Sodium Bicarbonate Neutralizer
- Leather Work Gloves
- Clear and Sunglass Safety Glasses
- Personal Respirator
- Face Shields

## **10 EVACUATION PROCEDURES**

## **EMERGENCY INCIDENTS AND CONTINGENCY PLAN**

If the facility needs to be evacuated, the ERC should notify facility personnel by portable radio. All onsite personnel should be accounted for and verified by contacting each supervisor. Depending on the nature and location of the emergency, the ERC should advise facility personnel and citizens which evacuation route and plan to implement. Operations staff should inform all non-county personnel and citizens on site and assist with their safe exit.

Traffic on roads into the facility should be stopped and re-routed as necessary by scalehouse personnel.

Clear access for response personnel and vehicles to the emergency should be maintained by county personnel. During a chemical release, bomb threat, fire, or other emergency, evacuate immediately if instructed to do so. Upon completing the evacuation of the facility, all personnel are to proceed directly to a rally point as designated by the ERC.

If personnel cannot attain the primary or secondary rally point, they should evacuate the facility using the nearest up-wind gate.

Primary Rally Point will be the Administrative Office.

Secondary Rally Point will be the Employee Parking Lot.

**EMERGENCY CALL FLOW CHART** Director: Dan S. 586-8657 updated 11/24/2021 Aaron L. 209-7210 Dan S. 586-8657 Harold G. 433-3504 Leigha U. 270-1301 Jimmy F. 464-0498 Neil M. 212-5325 Brad J. 810-423-7531 Ingrid G. 503-703-1375 Tammy B. 697-2940 Billy B. 464-5055 Doug B. 928-899-3170 Joshua Y. 634-2050 Megan M. 566-0452 Carl B. 634-0262 Patrick C. 503-3328 Daniel P. 973-978-9064 Ron V. 697-2757 Christina W. 757-894-1195 Joshua M. 257-5771 Nathan Z. 601-3203 Warren F. 609-204-7611 Danielle S. 496-1877 Frank M. 697-0708 Cody K. 201-1754 Jake B. 212-8730 Matthew B. 813-777-9489 Kyle V. 400-6176 Luis M. 508-463-8136 Jim 413-650-3170 James F. 443-624-3760 Joe E. 352-770-2451 Dan S. 302-3437 WC) Harold G. 400-0612

Figure 1 Emergency Call Flow Chart

Area Code **352** for all numbers unless otherwise specified.

## 11 CLEANUP AND DECONTAMINATION

All residues from a release, fire, or explosion should be contained and cleaned up consistent with the emergency spill procedure.

Immediately after the emergency, the ERC should provide for treating, storing, or disposing of the recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

The ERC should ensure that in the affected areas of the facilities:

- 1. No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed.
- 2. All emergency equipment listed in these contingency plans are cleaned and ready for their intended use before operations are resumed.

Any contaminated equipment should be cleaned with a suitable solvent and the discarded solutions handled in an appropriate manner or discarded with the spill cleanup material.

Decontamination should be conducted in accordance with an appropriate decontamination program.

## 12 FOLLOW-UP REPORTING

- 1. Initially, whenever an imminent or actual emergency situation arises, the on-call ERC should immediately:
  - a. Activate internal facility alarms or communication systems where applicable to notify all facility alarms or communication systems.
  - b. Notify appropriate state or local emergency response agencies with designated response roles if their help is needed.
- Whenever a spill/release, fire, or explosion occurs, the ERC should immediately identify
  the character, exact source, amount, and extent of any released materials. He or she
  may accomplish this by observation, review of facility records, or by chemical analysis if
  necessary.
- 3. Concurrently, the ERC should assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment should consider direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated; the effects of any hazardous surface water run-off from water or chemical agents used to control fire; or heat-induced explosions).
- 4. If the ERC determines that the facility has had a release, fire, or explosion that could threaten human health or the environment outside the facility, he/she should report the findings as follows:
  - a. If the assessment indicates that evacuation of local areas may be advisable, appropriate local authorities should immediately be notified. The ERC should be available to help appropriate officials decide whether local areas should be evacuated.
  - b. The ERC should immediately notify the government official designated as the onscene coordinator for the area or the State Warning Point (using the 24-hour telephone number 1-800-320-0519).

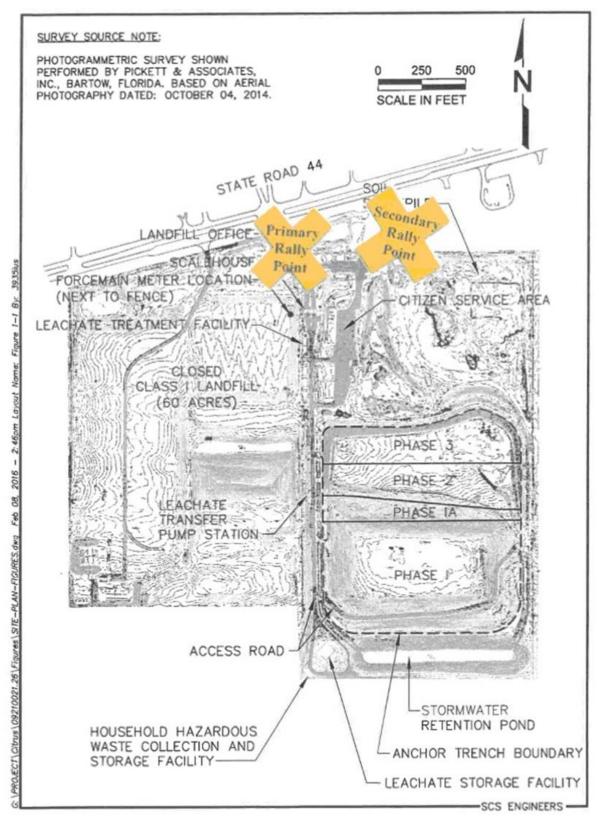
### c. Include:

- Name and telephone number of person reporting.
- Name and address of facility.
- Time and type of incident (e.g., release, fire).
- Name and quantity of material(s) involved to the extent known.
- Extent of injuries, if any.
- Possible hazards to human health or the environment outside the facility.
- 5. During the emergency, the ERC should take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, reoccur, or spread to other areas of the facility. These measures should include where applicable stopping processes and operations; collecting and containing release waste; releasing waste; and removing or isolating containers.

- 6. During an emergency, the ERC should monitor for leaks, pressure buildup, gas generation, or ruptures in containers and/or equipment wherever this is appropriate.
- 7. After an emergency, the ERC should provide for treating, storing, or disposing of recovered waste; contaminated soil or surface water; or any other material contaminated by a release, fire, or explosion at the facility.
- 8. The ERC should ensure that in the affected area(s) of the facility:
  - a. No waste that may be incompatible with the released material is stored or handled until cleanup procedures are complete.
  - b. All emergency equipment listed in the EMERGENCY INCIDENTS AND CONTINGENCY PLANS should be cleaned and ready for its intended use before operations are resumed.
- 9. The Owner or operator of the landfill should notify appropriate State and local authorities in writing that the facility is functional before operations are resumed in the affected area(s) of the facility.
- 10. The Owner or operator should note in the operating record the time, date, and details of any incident that requires implementation of the EMERGENCY INCIDENTS AND CONTINGENCY PLANS. Within 24 hours after the incident, the situation should be reported to FDEP (SW District Office Compliance Assurance Supervisor), and a written report on the incident should be submitted within 7 days. The report should include:
  - a. Name, address, and telephone number of the Owner or operator.
  - b. Name, address, and telephone number of the facility.
  - c. Date, time, and type of incident (e.g., fire, explosion).
  - d. Name and quantity of material(s) involved.
  - e. The extent of injuries, if any.
  - f. An assessment of actual or potential hazards to human health or the environment where applicable.
  - g. Estimated quantity of disposition of recovered material that resulted from the incident.

## **13SITE LAYOUT**

Figure 2 Site Plan, Citrus County Central Landfill



# Appendix 1 Operations Maintenance Building and Diesel Fuel Facility:

**Material Listing and Quantities** 

## **OPERATIONS MAINTENANCE BUILDING AND DIESEL FUEL FACILITY**

## **MATERIAL LISTING AND QUANTITIES**

## MAINTENANCE BUILDING

Chemical Listing	Maximum Quantities On Site
Gasoline	Eight 5-gallon cans
Oil	Two 55-gallon drums
Hydraulic Oil	Two 55-gallon drums
Grease	Two 120-pound drums
Adhesive for Plastics	Five 5-gallon containers
Lube Trailer	500 gallons diesel fuel
Diesel Exhaust Fluid (DEF)	One 330-gallon tote

## DIESEL FUEL FACILITY

Chemical Listing	Maximum Quantities On Site
Diesel Fuel	Four 500-gallon tanks

## **Appendix 2**

# Citizen Service Area: Material List and Maximum Site Capacity

#### **CITIZEN SERVICE AREA**

#### MATERIAL LIST AND MAXIMUM SITE CAPACITY

Material	Maximum Materials/Capacity
Garbage and Trash Containers	Ten 30-yard dumpsters
Recyclable Material Containers	<ul> <li>Ten 8-yard containers for single-stream recycling in CSA.</li> <li>Fourteen 8-yard containers on closed site.</li> </ul>
Waste Oil Containers	Three 385-gallon, double-wall containers
Antifreeze Containers	Two 100-gallon, double-wall containers
Waste Cooking Oil	One 100-gallon double-wall container
Waste Tires	115 tons
Scrap Metal	50 tons
Wood Waste	Approximately 5,000 tons combined capacity for unprocessed and processed wood waste
Lead Acid Batteries	Two pallets (50 – 75 batteries per pallet) within a secondary containment
Propane Tank Container	One 20-yard roll-off container containing:  Two hundred and fifty 20-pound tanks  Twenty 30-pound tanks  Five 60-pound tanks  Ten 100-pound tanks  One 120-gallon tank
Fluorescent Bulbs	<ul> <li>One hundred 4-foot fluorescent tubes</li> <li>Thirty 6- and 8-foot fluorescent tubes</li> <li>Three hundred compact fluorescent lights</li> <li>Up to eight 55-gallon drums of crushed blubs kept in the fluorescent bulb building</li> </ul>

# Appendix 3 Methane Gas: Hazard Management Summary

## METHANE GAS HAZARD DATA, AND MANAGEMENT SUMMARY

#### LANDFILL GAS HAZARDS AND MANAGEMENT

#### INTRODUCTION

Inside a landfill, waste breaks down and produces gas consisting mainly of methane and carbon-dioxide. Methane is the main threat to safety at a landfill because it can occur in large enough concentrations to explode if a spark is present. Carbon-dioxide is relatively nonreactive but can present some risk of asphyxiation. Minor components include ammonia, benzene, and hydrogen-sulfide, of which hydrogen-sulfide is the most important because it is easy to detect, giving landfills the distinctive *rotten egg* smell. While methane is odorless, it usually occurs in the presence of hydrogen-sulfide. These minor gases are all flammable but are unlikely to occur in sufficient quantities to explode.

#### **EXPLOSION HAZARD**

Methane is highly explosive when it makes up between 5 and 15 percent of the air volume. As the gas moves easily through loose soil, it can be a particular concern when it leaches into the confined spaces of a nearby building. Vapors can travel a considerable distance to an ignition source and flash back over the vapor trail. Contact may cause burns to skin and eyes.

#### OTHER HEALTH HAZARDS

Landfill gas has a putrescent, noxious, odor that generally is offensive to people rather than any adverse health effects related to exposure. Breathing methane and carbon-dioxide is only hazardous when it is present at high enough levels to significantly decrease the amount of oxygen in the air. During a severe gas leak in a confined space, suffocation can occur. Symptoms of being in an oxygen-deprived environment include sudden increased respiration (inability to catch one's breath), racing heartbeat, poor muscular coordination, and rapid fatigue. In more severe cases, nausea and vomiting often precede loss of consciousness, which can lead to death.

#### INCIDENT RESPONSE

The landfill maintains a comprehensive gas management system (Attachment A) to continuously burn off methane gas and mitigate the risk of dangerous buildup. If an emergency gas incident occurs, the following procedure should be used to manage the incident:

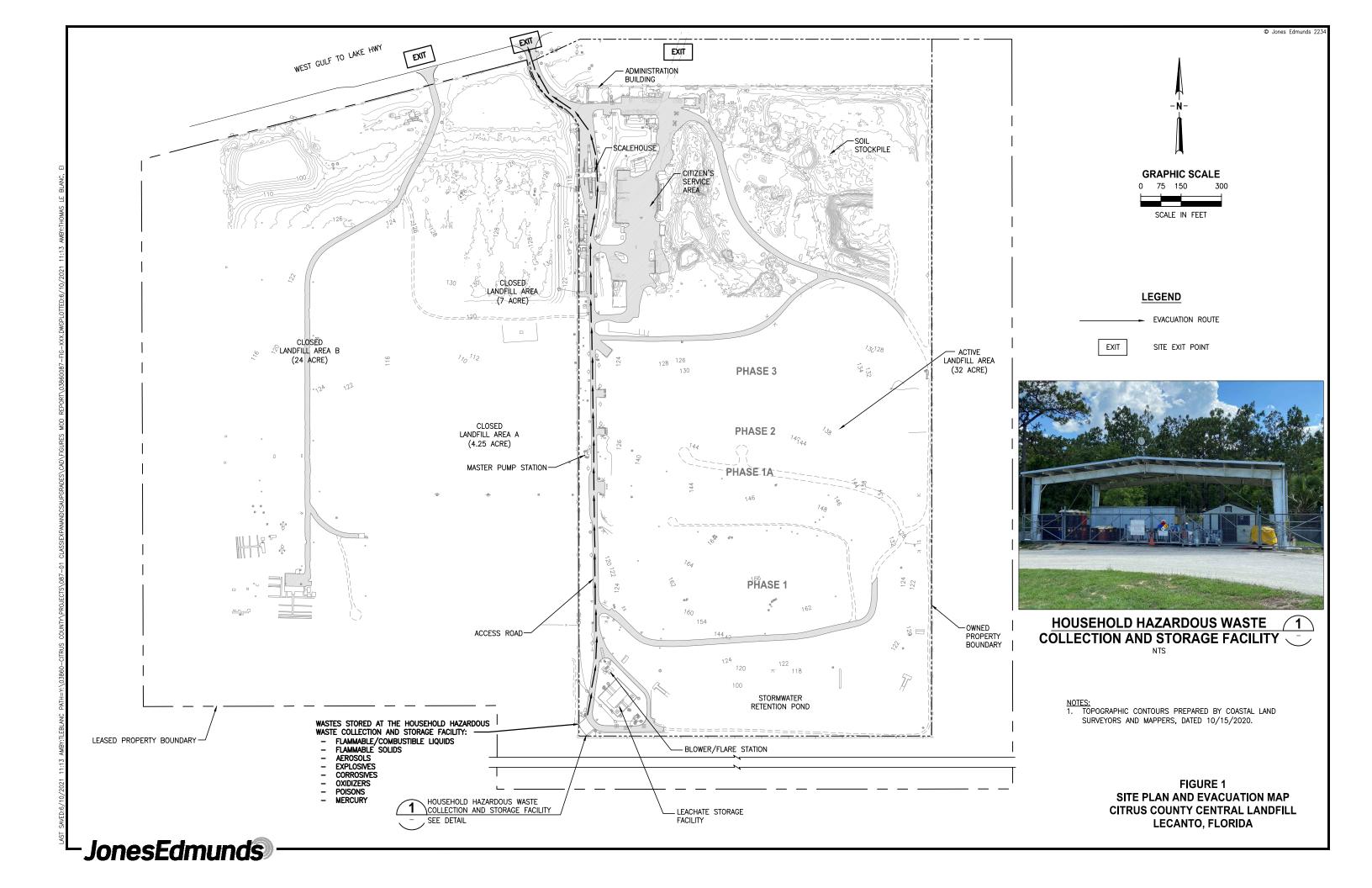
- Call 911.
- Keep unnecessary people away; isolate hazard area and deny entry.
- Stay upwind, out of low areas, and ventilate closed spaces before entering.
- Do not extinguish fires involving methane unless the flow of leaking material can be stopped.
- Cool from the side containers that are exposed to the heat of a fire with flooding amounts of water until well after the fire is extinguished.
- Apply water from as far away as possible.

- Move containers from the area of the fire and stop leaks if this can be done without undue risk.
- Use water spray to protect personnel attempting to move containers and stop leaks.

#### LIFE SUPPORT AND TREATMENT

Any rescuers should wear appropriate respiratory protection:

- Remove victims of inhalation from the toxic environment and monitor for respiratory distress.
- Copiously flush exposed eyes or skin with water.
- Administer 100-percent humidified supplemental oxygen with assisted ventilation as required. If not breathing, give artificial respiration.
- Carefully observe patients with inhalation exposure for the development of any systemic signs or symptoms and administer symptomatic treatment as necessary. Monitor arterial blood gases and chest x-ray in cases with significant exposure.



# Appendix 4 Hazardous Waste Facility Emergency Incidents and Contingency Plans

#### HAZARDOUS WASTE FACILITY EMERGENCY INCIDENTS AND CONTINGENCY PLANS

#### **CONTENTS**

- Introduction
- Regulatory and Contractual Requirements
- Contingency Procedures
- Spill Response
- Attachment A: Example Emergency Responder Notification Form
- Attachment B: Emergency Contingency Plan:
  - Figure 1: Site Plan and Evacuation Map
  - Figure 2: Map to the Nearest Hospital

#### **INTRODUCTION**

This Hazardous Waste Program should maintain a copy of the Solid Waste Management Facility's *EMERGENCY INCIDENTS AND CONTINGENCY PLANS* at the Hazardous Waste Collection Facility. These contingency plans explain the necessary actions to minimize hazards to human health or the environment from fire, explosion, or unplanned emergencies and chemical releases. To the extent possible, these plans should be followed when an emergency incident occurs.

#### **REGULATORY AND CONTRACTUAL REQUIREMENTS**

Guidelines used for this Program's emergency contingency plans are established within Occupational Safety and Health Administration (OSHA) standards 29 Code of Federal Regulations (CFR) 1910.38 and 1910.120 (a) and (q), Environmental Protection Agency (EPA) standard 40 CFR 265.50, Subpart D, and the Florida Administrative Code (FAC) Chapter 62-730 for Hazardous Waste, Chapter 62-737.400 for Management of Spent Universal Waste, and Chapter 62-710 for Used Oil Management.

#### **CONTINGENCY PROCEDURES**

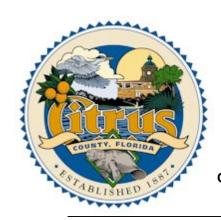
The emergency telephone number for response to this facility is **911**. The designated Emergency Response Coordinator (ERP) responsible for implementing the emergency contingency plans is the Director of Solid Waste Management. In the Director's absence, he/she should assign another competent staff member as instructed in the Solid Waste Management *EMERGENCY INCIDENTS AND CONTINGENCY PLANS*. For timely response, this Program should make emergency information available to local emergency response teams or contractors, who may be called upon in an emergency situation.



## HAZARDOUS WASTE FACILITY EMERGENCY INCIDENTS AND CONTINGENCY PLANS

Notification for Hazardous Waste Emergency Incidents and Contingency Plans should:

- Provide instructions to Program staff regarding emergency procedures relevant to job duties; see the Hazardous Waste SOG on Hazard Communications and Employee Right to Know (RTK) Program.
- Provide annual instruction to Program staff regarding how the Contingency Plans should be implemented.
- Be easy to assess.
- Be placed in the yellow Emergency Information box at the Hazardous Waste Collection Facility.
- Contain information that is pertinent to hazardous waste emergencies and contingencies.
- Be updated annually before the scheduled annual training.
- Be revised if it fails the desired expectations after an emergency event.
- Be updated if changes are applicable to contact information, rules, requirements, facility design, construction, operation, or maintenance.
- Include a form letter including a brief response explaining what should be expected of the emergency responder (Attachment A).
- Include a copy of the Hazardous Waste Facility Emergency Incidents and Contingency Plans, with a site plan and evacuation maps (Attachment B with Figures 1 and 2). Figure 1 includes a site map with specific waste types listed with emergency evacuation routes. Figure 2 includes a map indicating the best route to the closest medical facility.



## Board of County Commissioners DEPARTMENT OF PUBLIC WORKS SOLID WASTE MANAGEMENT DIVISION

P.O. Box 340, Lecanto, Florida 34460
Telephone: (352) 527-7670 FAX: (352) 527-7672
email: landfillinfo@citrusbocc.com
TDD Telephone: (352) 527-5303
Citrus Springs/Dunellon/Inglis/Yankeetown,Toll Free (352) 489-3120
TTY Telephone (352) 527-0825 or (352) 527-5312

June 8, 2021

Fire Chief Craig Stevens 3600 W. Sovereign Path, Suite 291 Lecanto, Fl. 34461

RE: Emergency Responder Notification Form

**Attachment A Sample** 

Dear Chief Stevens,

Enclosed is the Citrus County Hazardous Waste Emergency Contingency Plan. Section 29 CFR Part 1910.38 and 40 CFR Part 265.53 require Hazardous Waste Collection Facility operators to create an emergency contingency plan and to make arrangements with nearby police, fire, hospital, and environmental response contractors to provide an expedient and coordinated response to emergencies.

This letter and the enclosed Plan are to clarify our contingency plan and familiarize your agency with our Facility. This is to be used in the event of a Facility fire, explosion, an unplanned release of hazardous materials, or medical emergency. The Plan describes the services for which your agency would be needed, and it designates all other authorities and actions. The Plan also details types, maximum quantities, and storage locations for hazardous materials or wastes (e.g., floor and plot plans, escape routes).

The Plan should be reviewed annually and be revised if changes are necessary. This Facility will forward revised copies to you when these changes occur. This Program appreciates your assistance and looks forward to any recommendations or suggestions to ensure a comprehensive and complete Plan.

Respectfully,

Joshua McMinds Hazardous Waste Coordinator Division of Solid Waste Management

CC: Solid Waste Management Director

## CITRUS COUNTY HAZARDOUS WASTE EMERGENCY CONTINGENCY PLAN

Address	Citrus County Hazardous Waste Collection Facility 230 West Gulf to Lake Highway Lecanto, Florida 34461  PO Box 340 Lecanto, Florida 34460
EPA ID Number	FLD 98-210-2741
Last Revision Date	October 2020

#### **EMERGENCY RESPONSE COORDINATOR (ERC)**

#### ERC RESPONSIBLE FOR IMPLEMENTING THIS PLAN

The designated facility staff person responsible for implementing this plan is trained to respond to emergencies or has the information necessary to make decisions to respond to an emergency.

Name	Dan Sherlock
Position or Job Title	Director
Phone (Work)	352-527-7670
Work Cell	352-302-3437
Home Cell	352-586-8657

## FIRST ALTERNATE DESIGNATED FACILITY STAFF PERSON RESPONSIBLE FOR IMPLEMENTING THIS PLAN

The first alternate designated facility staff person responsible for implementing this plan is contacted if the primary designated facility staff person responsible for implementing this plan is not able to be reached.

Name	Harold Gravely
Position or Job Title	Field Crew Leader, Solid Waste Management
Phone (Work)	352-527-5575
Cellphone	352-400-0612

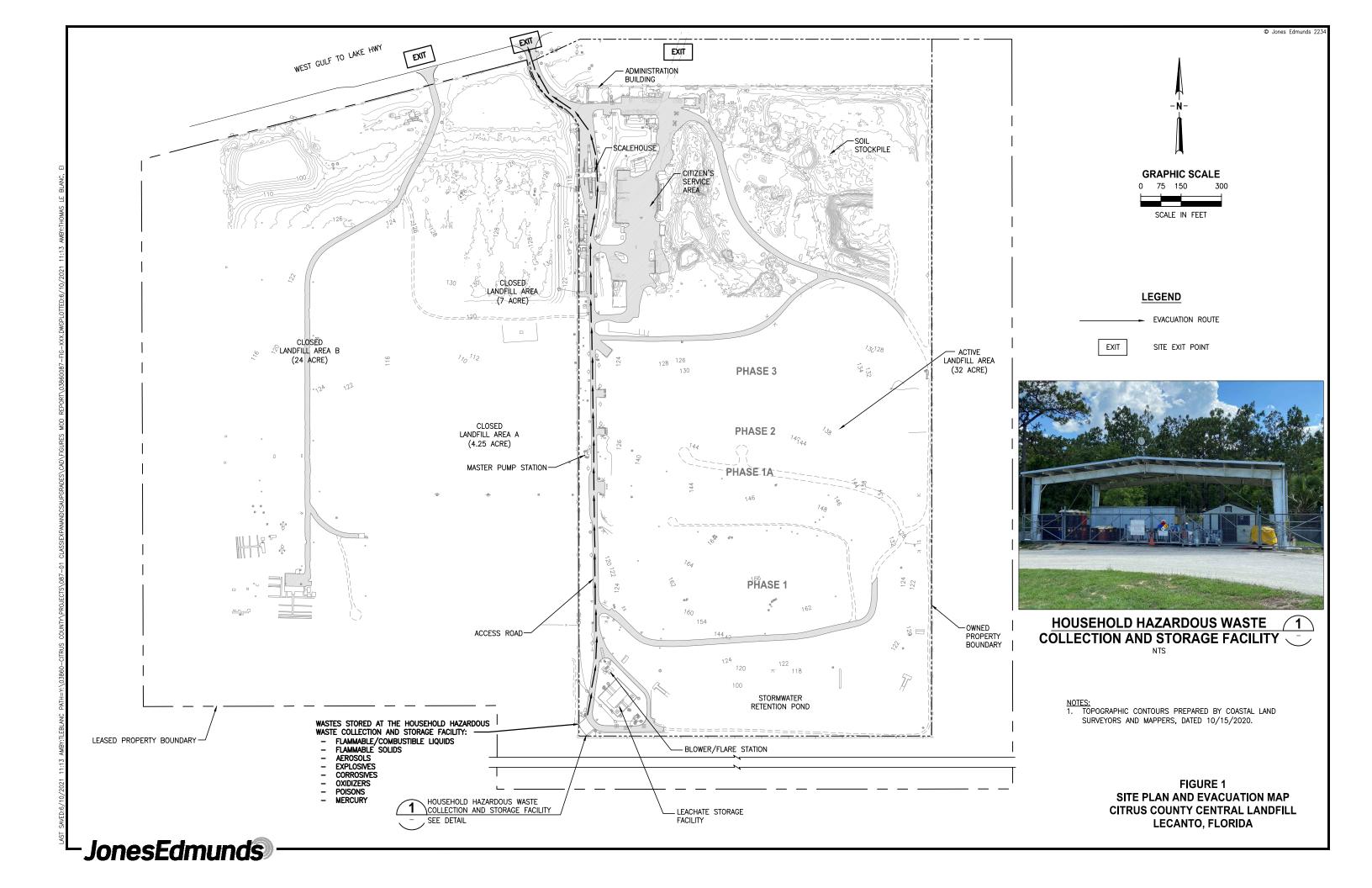
#### **EMERGENCY TELEPHONE NUMBERS**

All Emergencies	911
Police	911
Fire	911
Ambulance	911
Florida State Warning Point (to report any emergency)	800-320-0519
Bomb Squad (Local County Sheriff's Office)	911
HazMat Team (Local Fire/Rescue)	911

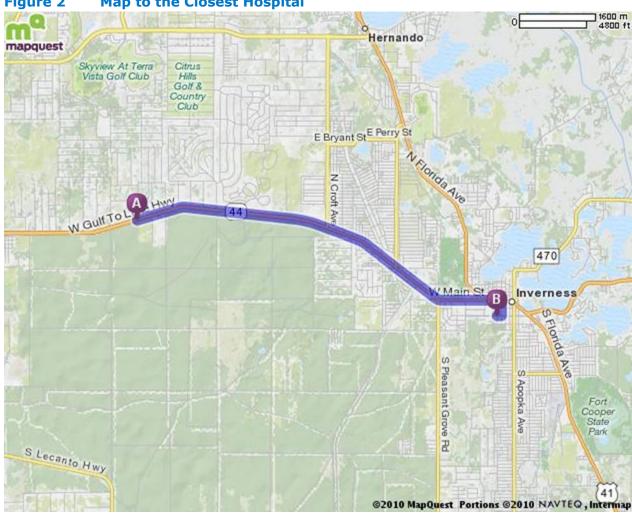
#### HAZARDOUS AND UNIVERSAL WASTE STORED ONSITE

Waste Category/Products	Hazard Class/Label	Package Type and Size	Maximum Quantity
Ammunition/Fireworks/ Flares	Explosives, Division 1.4	Poly, 5-gallon buckets with screw- top lid.	< 50 pounds
Paint and Mixed Aerosols	Flammable Gas, Class 2	One 50-gallon cart and two 55-gallon drums.	< 300 pounds
Flammable liquids, paints, thinners, fuels	Flammable Liquid, Class 3	One-gallon containers and 55-gallon metal drums	Six drums < 2,500 pounds
Paint-related materials and Tars (in cans)	Flammable Liquid, Class 3	One and 5-gallon cans in 4-foot-by- 4-foot metal cages	Three cages < 2,000 pounds
Paint-related materials (loose packed)	Flammable Liquid, Class 3	Steel, 55-gallon drums with open- top lids	Two drums < 300 pounds
Roofing Tars and Adhesives (bulked)	Flammable Liquid, Class 3	Steel, 55-gallon drums with open- top lids	Two drums < 1,000 pounds
Reactive Solids	Flammable Solids, Division 4.1	Poly, 5-gallon with screw-top lid	One container < 10 pounds
Oxidizers	Oxidizer, Division 5.1	Poly, 5-gallon with screw-top lid	< 50 pounds
Organic Peroxide	Organic Peroxide, Division 5.2	One-gallon zip-lock bag, labeled	< 1 pound
Pesticides/Poisons	Poison, Class 6	Segregated by solids and liquids into categories. Located on shelves for lab packing.	< 1,500 pounds

Waste	Hazard Class/Label	Package Type and	Maximum Quantity
Category/Products	Tiazaru Ciass/Labei	Size	Maximum Quantity
Acids	Corrosive, Class 8	Poly, 55-gallon, closed-top drum < 800 pounds Poly, 30-gallon, closed-top drum < 250 pounds Residential-style containers	Two drums  One drum  < 400 pounds
Basics (Alkalis)	Corrosive, Class 8	Poly, 55-gallon, closed-top drum < 500 pounds Poly, 30-gallon, closed-top drum < 250 pounds Residential-style containers	Two drums  One drum  < 400 pounds
Mercury	Corrosive, Class 8	Poly, 5-gallon with screw-top lid	One container < 50 pounds
PCB Ballasts/ Capacitors	Miscellaneous, Class 9	Poly, 5-gallon with screw-top lid	Two containers < 100 pounds
Petroleum or Oil Wastes with Dirt or Asphalt Mix	Miscellaneous, Class 9	Steel, 55-gallon drums with open- top lids	Four containers < 3,000 pounds
Used Oil for Recycling	Universal Waste – Used Oil for Recycling Non-Hazardous Waste		One container < 300 pounds
Spent Fluorescent Tubes for Recycling – Crushed in Drums	Universal Waste – Non-Hazardous Waste	Steel, 55-gallon drums with open- top lids	One container < 500 pounds







- START
- Start out going EAST on W GULF TO LAKE HWY/FL-44 E toward S THAYER AVE. Continue to follow FL-44 7.0 mi E.
- 2. Turn RIGHT onto S OSCEOLA AVE. 0.3 mi
- 3. Turn RIGHT onto W HIGHLAND BLVD. 0.1 mi
- 4. 502 W HIGHLAND BLVD.

# Appendix 5 Waste Tire Storage/Processing Facility Emergency Plan

## CITRUS COUNTY CENTRAL LANDFILL WASTE TIRE STORAGE/PROCESSING FACILITY

EMERGENCY RESPONSE MANUAL FOR
DEPARTMENT OF PUBLIC WORKS DIVISION OF
SOLID WASTE MANAGEMENT
CITRUS COUNTY CENTRAL LANDFILL
230 W. GULF TO LAKE HIGHWAY
LECANTO, FLORIDA 34461
352-527-7670

**APRIL 2022** 

#### **PREPAREDNESS**

Local fire authorities have been notified and will be kept apprised of the operations at the Citrus County Central Landfill Waste Tire Storage Facility in Recycle Alley at the Central Landfill, 230 W. Gulf to Lake Highway, Lecanto, Florida 34461. A site diagram will be provided as well as a copy of all revisions.

Waste tires are removed on a monthly basis through the County's Recycling and Transport contractor. The County's permit allows up to 115 tons of waste tires to be accumulated and stored onsite between removals.

The offsite copy of this manual is maintained at Citrus County Fire Services, 285 S. Kensington Avenue, Lecanto, Florida 34461.

#### **EMERGENCY NOTIFICATION LIST**

During an emergency at the Waste Tire Storage Facility, the Solid Waste Management Division Director or designee shall make notification(s) using the following list. The agency or agencies to be notified shall be based upon the type and degree of emergency.

Entity	Contact Details	Telephone Number
Solid Waste Management (After Hours)	Dan Sherlock (Director)	352-527-5570
Hospital	Citrus Memorial Hospital 502 West Highland Boulevard Inverness, Florida 34453	352-726-1551
Law Enforcement	Citrus County Sheriff's Office 1 Dr. Martin Luther King, Jr., Avenue Inverness, Florida 34461	352-726-4488

Entity	Contact Details	Telephone Number
Emergency	Police, Fire, Medical Response 3549 Saunders Way Lecanto, Florida 34461	911
Fire Prevention	Citrus County Fire Rescue – Fire Prevention 3600 West Sovereign Path Lecanto, Florida 34461	352-527-5406
Emergency Medical	Nature Coast EMS 3876 W. Country Hill Drive Lecanto, Florida 34461	352-249-4700
Environmental	Department of Environmental Protection, Southwest District 13051 N. Telecom Parkway Temple Terrace, Florida 33637-0926	813-470-5700
	Office of Emergency Response	813-470-5954

#### **EMERGENCY PROCEDURES**

Every effort shall be made to operate the facility in a safe manner. During a small fire, the personnel discovering the fire should determine whether it can be extinguished safely and quickly with an available fire extinguisher. If the fire can safely be extinguished with available materials, appropriate actions should be taken and timely notification made to the Director or the Certified Landfill Operator in charge and Citrus County Fire Prevention.

During a larger fire, the Director and/or Certified Landfill Operator in charge or other such person as may from time to time be designated shall be notified immediately, and he/she shall notify 911 and mobilize on-site equipment, which includes one 2,600-gallon water-tanker with pump until emergency response vehicles arrive at the site. In addition, a fire hydrant is in the vicinity of the southwest corner of the tire storage area as well as a water fire extinguisher at the north end of the area and a dry chemical extinguisher at the south end. Telescoping hooked poles are stored next to the tool crib door in the Maintenance Building, which can be used to move individual burning tires away from the pile if necessary. The Citrus County Fire Rescue has a facility approximately 1-1/2 miles from the Central Landfill.

During a large fire creating oily material at the site, the following procedure shall be implemented:

- 1. Dike the area with absorbents to prevent spreading.
- 2. Spread absorbents to clean up material.
- 3. Contain used absorbents in 55-gallon steel drums.
- 4. Properly dispose of the drums through the County's Hazardous Waste Disposal Contractor.

5. Perform other actions deemed necessary by the Fire Services officer in charge at the scene and/or the Director of Solid Waste Management.

All materials needed for clean-up and disposal are stored in the Household Hazardous Waste Collection Center at the southwest corner of the Central Landfill.

#### **FOLLOW UP**

During an emergency, the permittee shall immediately (within 24 hours) notify FDEP explaining the occurrence and remedial measures to be taken, method to prevent reoccurrence, and time needed for repair. Written, detailed notification shall be submitted to the FDEP within 7 days following the occurrence.

# Appendix B Citrus/Hernando Counties Interlocal Agreement

# INTERLOCAL AGREEMENT BETWEEN HERNANDO COUNTY AND CITRUS COUNTY FOR MUTUAL EXCHANGE OF SERVICES FOR SOLID WASTE DISPOSAL DURING EMERGENCY EVENTS

**THIS AGREEMENT** is made and entered into by and between HERNANDO COUNTY, a political subdivision of the State of Florida, by and through its Board of County Commissioners, hereinafter called "HERNANDO," and CITRUS COUNTY, a political subdivision of the State of Florida, acting by and through its Board of County Commissioners, hereinafter called "CITRUS."

#### WITNESSETH:

WHEREAS, In the event of an emergency, CITRUS or HERNANDO may have waste that it wishes to dispose of in the other County's solid waste disposal system; and

WHEREAS, both Counties have additional disposal capacity in its integrated solid waste management system and is willing to accept and dispose of additional solid waste from the other County during an emergency event; and

WHEREAS, CITRUS and HERNANDO, pursuant to Section 163.01, Florida Statutes, wish to enter into this Interlocal Agreement to provide for a mutual exchange of services for the disposal of solid waste at either waste disposal system during an emergency event; and

WHEREAS, through this cooperative agreement, CITRUS and HERNANDO wish to initiate successful and environmentally sound emergency Solid Waste Disposal options for the benefit of both County's residents.

**NOW, THEREFORE,** in consideration of the foregoing premises, which shall be deemed an integral part of this Interlocal Agreement, and of the mutual covenants and conditions hereinafter set forth, CITRUS and HERNANDO, intending to be legally bound, hereby agree as follows:

#### SECTION 1. PURPOSES

The WHEREAS clauses set forth above are incorporated herein by reference and made a part of this agreement. Based thereon, it is the purpose and intent of this Agreement to define the terms and conditions of mutual provisions of solid waste disposal services between the Counties. This Agreement is intended to provide a mutual exchange of services for the disposal of solid waste at either County's Solid Waste Management facility during an emergency event. All terms and conditions of this Agreement shall be interpreted in a manner consistent with, and in furtherance of, the purposes as set forth above.

#### SECTION II. AUTHORITY FOR AGREEMENT

This Agreement is entered into pursuant to the authority set forth in Chapter 87-441, Laws of Florida, Section 163.01, Florida Statutes, as amended, Section 252.38 Florida Statutes, and Chapter 403 Part IV, Florida Statutes. Either County warrants and represents to the other county that the execution and delivery of this Agreement has been duly authorized by all appropriate actions of the Governing Body of either County, and this Agreement has been executed and delivered by an authorized officer of either County, and this Agreement constitutes the legal, valid and binding obligation of either County enforceable against it in accordance with its terms (except as enforceability may be limited by applicable bankruptcy or similar laws affecting creditors' rights, and by application of equitable principles if equitable remedies are sought).

#### SECTION III. DEFINITIONS

Certain terms having specific definitions are used in this Agreement, and these terms and definitions, unless the context clearly indicates to the contrary, are as follows:

- A. CITRUS shall mean CITRUS County, Florida, a political subdivision of the State of Florida.
- B. HERNANDO means HERNANDO County, Florida, a political subdivision of the State of Florida.
- C. Governing Body of CITRUS means the Board of County Commissioners of CITRUS County.
- D. Governing Body of HERNANDO means the Board of County Commissioners of HERNANDO County.
- E. Emergency Event shall mean locally declared state of emergency, failure of the landfill's normal and backup power supply, scales, scalehouse building and / or computers for scalehouse management system.
- F. Hazardous Waste means a waste material, or a combination of waste materials, which because of its quantity, concentration, or physical, chemical, or infectious characteristics may cause, or significantly contribute to, an increase in mortality or an increase in serious irreversible or incapacitating reversible illness or may pose a substantial present or potential hazard to human health or the environment when improperly transported, disposed of, stored, treated, or otherwise managed. The term "hazardous waste" includes, but is not limited to, volatile, chemical, biological, explosive, flammable, radioactive, and toxic materials. "Hazardous Waste" shall also mean waste which is defined as harmful, toxic, dangerous or hazardous at any time during the term of this Agreement pursuant to i. Chapter 82-730 F.A.C ii. Any other Federal, State, HERNANDO County or local codes, statutes or laws; and iii. Any regulations, orders or other actions promulgate or taken with respect to the terms listed in (1) through (iii) above; provided, however, that any such materials which are later determined not to be harmful, toxic, dangerous or hazardous by any governmental agency or unit having appropriate jurisdiction shall not be considered "Hazardous Waste" unless a contrary determination has been made or is made by any other governmental agency or unit having appropriate jurisdiction.
- G. Non-processable Waste means ashes, foundry sand, cesspool and other human wastes, human remains and animal carcasses, tree trunk sections, branches and stumps, matter or material or material longer than six feet, motor vehicles (including major parts such as transmissions, rear ends, springs, and fenders), agriculture machinery and equipment, marine vessels and their major parts, any other large machinery or equipment, liquid waste, any matter or material of which in the Solid Waste Disposal System is prohibited by any law, ordinance, rule, or regulation of any government or public agency having jurisdiction over the project and its operations, ordinance materials, Hazardous Waste and Special Waste.
- H. Solid Waste shall have the same meaning as defined in Rule 62-701.200(13) F.A.C. ("Class I Waste" means solid waste that is not hazardous waste, and this is not prohibited from disposal in a lined landfill under Rule 62-701.300, F.A.C.)
- I. Solid Waste Disposal System means any and all facilities used and useful by the Counties in collection, transportation, and disposal of solid waste, including as applicable, but not limited to, volume reductions, plants, sanitary landfills or other disposal means, resource recovery facilities, including transfer stations to the extent the transfer stations are provided or operated to carry out the provisions of proper disposal.
- J. Special Wastes means any waste that require extraordinary management and includes, but is not limited to: abandoned automobiles; inoperative and discarded refrigerators, ranges, washers, water heaters, and other similar domestic and commercial appliances; used tires; waste oil; sludges; dead animals; septic tank pumpings; and infectious waste.
- K. Transfer Station means a facility where solid waste is placed before being transferred to a solid waste processing or disposal facility.

#### SECTION IV. COUNTIES OBLIGATION TO PROVIDE DISPOSAL DURING EMERGENCY EVENTS

- A. Disposal Obligation During the term of this Agreement, either County shall provide solid waste disposal services to the other party upon notification of their intent to implement emergency operations. Such disposal services shall consist of either County accepting the waste from the other County for disposal in their respective Solid Waste Facility. The respective Counties shall be fully responsible for the control and ultimate disposition of the same.
- B. **Disposal Quantities** Such disposal services shall consist of CITRUS accepting the waste from HERNANDO in the maximum amount of 150 tons per day during emergency operations and HERNANDO accepting the waste from CITRUS in the maximum amount of 400 tons per day during emergency operations. Emergency Operations shall be considered a 60 day period, which period may be extended in writing upon mutual agreement between the Counties.
- C. Status of CITRUS Collectors HERNANDO agrees, subject to the tonnage limitations that licensed collectors from CITRUS which are authorized by CITRUS to utilize HERNANDO County's Solid Waste Facility shall be authorized to use said facility upon implementation of emergency operations by CITRUS.
  - a. Authorized Disposal HERNANDO agrees that CITRUS shall not be charged for disposal under the terms of this Agreement for collectors or persons which have not been authorized by CITRUS to utilize the HERNANDO Solid Waste Facility. Any such unauthorized collector or person disposing of solid waste from CITRUS shall be charged by HERNANDO directly for the applicable tipping fee in the event HERNANDO elects to accept such waste.
- D. Status of HERNANDO Collectors CITRUS agrees, subject to the tonnage limitations that licensed collectors from HERNANDO which are authorized by HERNANDO to utilize CITRUS County's Solid Waste Facility shall be authorized to use said facility upon implementation of emergency operations by HERNANDO.
  - a. Authorized Disposal CITRUS agrees that HERNANDO shall not be charged for disposal under the terms of this Agreement for collectors or persons which have not been authorized by HERNANDO to utilize the CITRUS Solid Waste Facility. Any such unauthorized collector or person disposing of solid waste from CITRUS shall be charged by CITRUS directly for the applicable tipping fee in the event CITRUS elects to accept such waste.
- E. Reports The Counties agrees to provide reports indicating the amount of waste received from either County under the terms of this Agreement.
- F. Hours of Operations Both Counties agree that their Solid Waste Disposal Facilities shall be available to accept disposal of waste from the other County for not less than forty (40) hours per week, excluding weeks with legal holidays.

#### SECTION V: PAYMENT OBLIGATIONS

- A. Service Fee Both Counties agree to pay the other County a service charge on a per tonnage basis based upon the actual number of tons delivered at either facility during the emergency period as follows:
  - a. Service fee charged to CITRUS for use of HERNANDO'S facility shall be \$54.50 per ton.
  - b. Service fee charged to HERNANDO for use of CITRUS'S facility shall be \$55.00 per ton.
- B. Source of Payments by Counties The obligation of either County to pay any monies due under the Agreement does not constitute a general indebtedness of either County within the meaning of any statutory or constitutional provision limiting the amount and nature of indebtedness that may be incurred by either County. The obligations and liabilities of either County under this Agreement are payable solely from operating and maintenance accounts or funds from either County's solid waste collection or disposal operations.
- C. Irrevocable Commitment to Pay CITRUS and HERNANDO shall pay the billings submitted by either County throughout the term of this Agreement and said payment shall be without notice or demand and without set-off, counterclaim, suspension or deduction.

- D. Collector Identification Both Counties shall provide to the other County specific information identifying the licensed collectors within their respective County, that are authorized to deliver waste to the respective County's Solid Waste Facility under the terms of this Agreement. Such identification shall include, but not be limited to, the collector's name, permit number, vehicle types and registration numbers, and such other information useful in the identification of authorized collectors.
- E. Collector Responsibilities Both Counties agree that its' licensed collectors utilizing either County's Solid Waste Disposal Facility shall be responsible for the proper removal, transport and disposal of any non-processable waste, hazardous waste or special waste delivered to the County's Solid Waste Disposal Facility. Said collectors shall also be responsible for compliance with any applicable federal, state or local laws, including the respective Counties ordinances, governing the transportation and disposal of solid waste.

#### SECTION VI: COLLECTION OF SOLID WASTE

CITRUS and HERNANDO agree that both Counties shall be solely responsible for the collection of solid waste within either County. Furthermore, the Counties agree that they will take all necessary steps to require the collection services permitted or licensed by the respective Counties to deliver the waste at such location and during such times as either County shall direct during emergency events. It is affirmatively understood that neither County shall be obligated to accept waste under the terms of this Agreement from individual residents or other persons from the other County.

#### SECTION VII: TERM OF AGREEMENT

This Agreement shall have a term of one (1) year, which shall automatically renew for succeeding year periods, unless terminated by either party via the provision of sixty (60) days written notice prior to the expiration of that term year. Notice shall be provided to the administrator of the county being notified of termination. The Counties obligation to deliver and pay for the agreed upon delivered waste tonnage and obligation to accept such waste under the terms of this Agreement shall commence upon mutual agreement of both parties. This agreement is not a put or pay type of agreement.

#### SECTION VIII: COVENANT OF FURTHER ASSURANCES

The Counties agree that from and after the date of execution hereof, each will, upon the request of the other, execute and deliver such other documents and instruments and take such other action as may be reasonably required to carry out the purpose and intent of this Agreement.

#### SECTION IX: PRIOR AGREEMENTS

This Agreement shall supersede any or all other agreements between CITRUS and HERNANDO, if any, to the extent that the terms and provisions of any such agreement conflict with the terms and provisions of this Agreement.

#### SECTION X: ASSIGNMENT

No assignment, delegation, transfer, of this Agreement or part hereof, shall be made, unless approved by both Counties.

#### **SECTION XI: NOTICE**

Any notices or other rights permitted or required to be delivered pursuant to the Agreement, shall be delivered to HERNANDO, at the Office of the HERNANDO County Administrator and to CITRUS, at the Office of CITRUS County Administrator.

#### SECTION XII: AMENDMENT

County Attorney

This Agreement may only be amended by writing duly executed by CITRUS and HERNANDO.

#### **SECTION XIII: FORCE MAJEURE**

In the event either County's performance of this Agreement is prevented or interrupted by consequence of an act of God, or of the public enemy, or national emergency, allocation or other governmental restrictions upon the use or availability of labor or materials, rationing, civil insurrection, riot, racial or civil rights disorder or demonstration, strike, embargo, flood, tidal wave, fire, explosion, bomb detonation, nuclear fallout, windstorm, hurricane, sinkholes, earthquake, or other casualty or disaster or catastrophe, or an order, judgment or injunction of any court, or state or deferral administrative agency exercising jurisdiction over the subject matter of this Agreement, or a federal or state statute, or the incorporation of previously unincorporated areas within either County, that the parties shall not be liable for such nonperformance, and the time of performance shall be extended for such time period that such party is diligently attempting to perform.

IN WITNESS WHEREOF, the parties hereto have executed the foregoing agreement on this 19th day of November, 2013 (date of last party's execution).
HERNANDO COUNTY, a political subdivision of the State of Plorida:
Don Barbee, Clerk David D. Russell, <del>Jr., Chairman</del>
APPROVED AS TO FORM AND LEGAL SUFFICIENCY  BY  County Attorney's Office  County Attorney's Office  State of Florida:
ATTEST:  Than Luni Luni Luni Chairman  Angela Vick, Clerk  SEAI
Approved as to form for the COUNTY ROLL Reliance of Citrus County only

# Appendix C Leachate Treatment Agreement



#### **BOARD OF COUNTY COMMISSIONERS**

DEPARTMENT OF WATER RESOURCES
DIVISION OF UTILITIES

3600 W Sovereign Path Suit 291 Lecanto, Florida 34461-9014

Telephone: (352) 527-7650 Fax: (352) 527-7644

Citrus Springs/Dunnellon/Inglis/Yankeetown area - Toll Free (352) 489-2120

TTY Telephone: (352) 527-5312 www.bocc.citrus.fl.us

#### MEMORANDUM

To:

Larry Brock, Assistant Public Works Director

Thru:

Ken Cheek, Water Resources Director (

Jeff Rogers, Public Works Director

From:

Gary Loggins, Utilities Operations Division Director

Date:

May 27<sup>st</sup>, 2015

Re:

**Memorandum of Understanding** 

This Memo shall serve as a memorandum of understanding (MOU) between Citrus County Utilities Division (Utilities) and Citrus County Solid Waste Management Division (SWM).

Utilities agrees to secure and treat leachate produced at SWM landfill at a monthly base rate of \$752.98 plus \$8.40 per thousand gallons of leachate treated, not to exceed 100,000 gallons per day on an annual average basis. Flows may be adjusted accordingly by Utilities during extreme wet weather conditions.

SWM agrees to pay a Wastewater Capacity fee of \$56,000.00 for 36.15 Equivalent Residential Units (ERU's) at \$1,550.00 per ERU. SWM also agrees to pay the \$752.98 base rate (6" meter base charge) plus \$8.40 per thousand gallons.

SWM agrees to provide annual influent Toxicity Characteristic Leaching Potential test (TCLP) listed in 40 CFR, Part 261.24, Appendix XI, (at leachate storage tanks).

This MOU shall continue through the duration of SWM, landfill long-term care requirements.

'Cc: Randy Oliver, Citrus County Administrator

## Supplement to Memorandum of Understanding between Citrus County Utilities Division and Citrus County Solid Waste Management Division

Dated May 27, 2015

#### **Leachate Force Main Billing**

The Utilities Division will read the leachate force main meter at the landfill on a monthly basis and forward the invoicing through the Clerk's Office Finance / Accounts Payable Section for approval of payment by Solid Waste Management.

#### **Leachate Hauling and Disposal Procedure**

In the event Solid Waste Management is required to implement contractor hauling and disposal at one of the County's Wastewater Treatment plants, by the 10<sup>th</sup> of the following month, the Solid Waste Management will provide a monthly summary report to Utilities Division indicating the disposal amount (gallons per day) for each plant and the treatment fee (per day) at the rate of \$8.40 per thousand gallons.

Payment shall be through the Journal Voucher process initiated by the Utilities Division upon receipt of the monthly summary report from Solid Waste Management.

# Appendix D Daily Operator Log

### **Citrus County Central Landfill**

### **Daily Operator Log**

DESCRIPTION	SOURCE / LOCATION	ACTION REQUIRED	TYPE OF ACTION	ACTION COMPLETION DATE / NOTES
EROSION (50% of soil has been eroded. Waste, liner, or geonet is exposed). To be repaired within 48 hours or by close of the next business day.	□ 80 ACRE □ 60 ACRE □ OTHER	YES   NO YES   NO YES   NO		
SETTLEMENT (Low spots and improperly graded areas which cause ponding of water).  To be repaired within 7 days.	□ 80 ACRE □ 60 ACRE □ OTHER	YES   NO YES   NO YES   NO		
ODORS (Beyond north boundary line).	□ 80 ACRE □ 60 ACRE □ OTHER	YES   NO YES   NO YES   NO		
LITTER (Normal traffic areas to be collected and disposed of daily - property boundary weekly).	□ 80 ACRE □ 60 ACRE □ OTHER	YES   NO YES   NO YES   NO		
Complete DAILY: Identify and report any leachate seepage in Phases 1, 1A, 2, and 3. Identify whether seep has breached into the swale or is still contained within liner.	Contained Breached	YES   NO		
WATERING for dust control . Show locations on map.	□ 80 ACRE	Number of Truck loads:	Attach tickets to log	
Leachate Storage Tank containment area inspection leaks / damage; refer to Operations Plan for stormwater removal criteria from secondary containment .		YES - NO		Damage and/or failure of any of the landfill site facilities, unauthorized leachate discharges, dry GW wells, gas exceedances, fire, explosion, development of sinkholes or other subsurface instability at the site.
Working Face Width < 50 ft x 75 ft. Only wide enough for traffic minimizing exposed area and daily cover.	□ 80 ACRE	YES   NO		Notify DEP within 24 hours and written follow up within 7 days.
Stormwater Conveyance adequate performance of stormwater system.	□ 80 ACRE □ 60 ACRE □ OTHER	YES   NO YES   NO YES   NO		
OTHER ITEMS:				
To be forwarded to SWM Director by 10:0	<u>U am each day</u>			
Daily Inspections assigned as follows:  Monday: Dan / Michael Tuesday: Harold / Neil Wed: Tammy/Michael Thursday: Billy / Dan	INSPECTED BY:	*see schedule		DATE
Friday: Áaron / Neil				

Sat: Certified Landfill Operator Sunday: Per sign up sheet

# Appendix E Sample Load Checking Inspection Forms

#### CITRUS COUNTY CENTRAL LANDFILL

#### **WEEKLY MONITORING OF WASTE – INSPECTION RESULTS**

#### TO BE COMPLETED BY OPERATOR:

HAULING COMPANY:	_DATE:	_TIME:
DRIVER FIRST NAME & LAST INITIAL:		
ID# OF VEHICLE:VEHIC	LE TAG NO.:	
TYPE OF WASTE AS STATED BY DRIVER (CHECK C	ONE): GARBAGE:[ ]	YARD WASTE: [ ]
OTHER [ ]		
LOAD CONTAINS PROHIBITED MATERIALS (IF YES	S, FILL OUT BOX BELOV	N): YES[ ] NO[ ]
TIRES: [ ] WHITE GOODS: [ ] YARD WASTE	:[ ] GARBAGE IN YAF	RD WASTE AREA: [ ]
SLUDGE (WITH > 12% LIQUID): [ ] DRUMS OV	ER 20 GAL WITHOUT H	OLES: [ ]
RED BAGS (BIOMEDICAL): [ ] PAINTS: [	] PAINT RELATED (T	HINNERS): [ ]
AEROSALS:[ ] POISONS:[ ] REACTIVES: [ ]	CORROSIVES: [ ] F	LAMMABLES: [ ]
OIL/FILTERS: [ ] BATTERIES: [ ] OTHER:		
RELOCATION ACTION:		
ACTION TAKEN FOR HHW MATERIALS:		
INSPECTOR SIGNATURE AND TITLE:		
mor Ediok didikatoke And Title.		
FOLLOV	<u>/ UP</u>	
PICTURE(S) OF LOAD TAKEN: YES [ ] NO [	] BY:	
SCALEHOUSE ADVISED TO ADD WRC: YES ( )	NO ( ) NUMBER OF F	IOURS:
(971C= WASTE RELOCATION CHARGE @ \$90 PER		
ADM. FOLLOW-UP: WRC VERIFIED IN SYSTEM:	YES() NO(	) <u>By:</u>
ADM. FOLLOW-UP - PICTURE ATTACHED TO REPO	RT:	

# Appendix F Maintenance Summary Form



# Board of County Commissioners DEPARTMENT OF PUBLIC WORKS SOLID WASTE MANAGEMENT DIVISION

#### **Maintenance Summary Form**

DateIde	entified by: (staff name)	
Location of Problem		
Description of Maintenance Needed	/ Problem	
D. t. It O. i. i It. Di Lint O		N/A
	vice	N/A □
Manufacturer	Model	<del></del>
Serial #	Other	
Type	Hp	
VoltagePhase	Primary/Secondary	
Speed/RPM		
Control panel #		
Parformed by:		
Reviewed by (Supervisor's Name) _		<del> </del>
Supervisor's Signature	Date Completed	

#### <u>Instructions for completing the Equipment Operator Service Report</u>

It is the responsibility of each equipment operator to ensure that this form is correctly and completely filled out. It is to be used by each operator to monitor the condition of the equipment. It is designed to be used by at least two operators a day but can be used by more if need be. Information on this form is used to track data such as hours used, fuel usage, oil consumption and to notify the supervisor and other operators of the condition of the equipment. Safety items must be reported immediately to the supervisor on duty.

Explanation of entries to be made: Refer to the operator's manual for further instructions.

#### Daily Walk Around Inspection:

Each operator will do a thorough walk around inspection as prescribed in the operator's manual before operation.

#### **Beginning Hours:**

Record the hours that you started operating the equipment.

#### Refuel Hours:

Record the hours that you filled the fuel tank. This will differ depending on when fuel is added.

#### **Ending hours:**

Record the hours when you leave the equipment.

#### Fuel Added, Gallons:

Record the total amount of fuel added to the fuel tank.

#### Check/Top-off Engine Oil:

Check the oil and if needed record the amount added.

#### Check Coolant Level:

Look at the sight glass, do not remove radiator cap if engine is hot.

#### Check Hydraulic Oil Level:

Check the oil and if needed record the amount added.

#### **Check Transmission Oil Level:**

Check the oil and if needed record the amount added.

#### Lubricate per Operators Manual:

Lubricate the points specified in the manual as prescribed in the manual.

#### **Check Drive Train for leaks:**

Look under and around the equipment for leaks.

#### Remove Debris:

Remove anything that is not part of the machine. Pay attention to pinch areas.

#### Drain Fuel Filter Water Separator:

Refer to operator's manual for procedure.

#### Backup Alarm & Fire Extinguisher:

These are critical safety items and must be serviceable at all times.

#### Clean Windows and Cab Interior:

Wash the windows and sweep out the cab. Remove your trash.

#### Quick Coupler & Tire Pressure:

Ensure that the coupler has no obvious cracks and that the tire pressure is correct.

#### Check/ Clean Cab fresh air filters:

Check and clean both external and internal cab fresh air filters.

#### Clean Primary Engine Air Cleaner:

Clean when necessary. Observe Indicator.

#### Initials:

Place your initials in the space provided to show that you completed the form.

#### Operator Comments:

Space provided for comments relating to machine operation and safety issues.

This form needs to be turned in to the field crew leader no later than 10:00 AM every Monday for the previous week. They will then review all entries for accuracy and corrective action if necessary.

OPERATOR DAILY CHECKS & SERVICE	1008	Volvo LC450H Compactor	20576	Volvo Articula	ed Truck	20584	MAC Roll-Off	Truck	53430	631750 Volvo	Loader
Equipment Number:	20598	Water Truck	20508	Bobcat Skid S	teer	53471	Kut Kwick Slo	pe Mower	53431	631751 Volvo	Loader
	20599	CAT Excavator	55560				Toro Mower		0-0.0	Kubota RTV 9	900
Start:	7233	JD 850L Dozer	51556	Tire De-Rimm	er		Kubota Batwi			Kubota RTV 1	
				L20 Volvo Min	i Loader		Freightliner R	oll-Off Truck	55182	Freightliner R	oll-Off Truck
Ending:	WEEK OF			1		TO:				ı	
	Mon	day Tue	esday	Wedn	esday	Thu	rsday	Frida	ay	Sati	urday
Daily Walk Around Inspection											
Beginning Hours											
Refuel Hours											
Ending Hours											
Fuel Added, Gallons											
D.E.F Added, Gallons											
Check / Top-off Engine Oil											
Check Coolant Level / Radiator											
Check Hydraulic Oil Level											
Check Transmission Oil Level											
Check Drivetrain For Leaks											
Remove Debris From Pinch Areas											
LUBRICATE every 10 hours											
Drain Fuel Filter Water Separator											
Backup Alarm & Fire Extinguisher											
Fire Suppression System Check / Test											
Clean Windows and Cab Interior											
Quick Coupler and Tire Pressure											
Check / Clean Cab Fresh Air Filter											
Clean Primary Engine Air Cleaner											
Initials											
Operator Comments:		"Hav	e you gre	eased and	cleaned	" YOUR " I	machine la	ately"			
Total Hours Operated				iven to Aaron		Next Service	Due				
Total Fuel Used			by 10:00 AM	every Monday						1	
Gallons Per Hour						Posted		L			

Equipment Number: 52425	52425	Landfill Spra	ayer Machine									
OPERATOR DAILY CHECKS & SERVICE												
Start:												
Finish:	WEEK	OF:					TO:					
	Monda	ay	Tue	sday	Wedn	esday	Thu	rsday	Frid	ay	Satu	ırday
Beginning Hours												
Refuel Hours			1									
Ending Hours			1									
Fuel Added, Gallons												
Check Engine Air Filter												
Check / Top-off Engine Oil												
Check Level in Radiator & Overflow Tank												
Check Hydraulic Oil Level												
Check Tires for Damage / Cuts												
Grease every 8 hours (1-2 Squirts) Lithium												
Check Engine & Tank Area for Leaks												
Remove Debris From Wheels & Decking												
Inspect Tank for Foreign Objects (Clean)												
Inspect Hitch, Safety Chains												
Inspect all Handrails are in Place & Secure												
Check Bag Cutter is in Place & Secure												
Check & Clear Nozzle for Obstructions												
Remove Drain Plug On Pump for (Freeze)												
Check Automatic Pressure Lubricator												
Initials												
Operator Comments:			"Have	e you grea	ased and c	leaned "	YOUR " m	achine lat	ely"			
Total Hours Operated				Must be giv	ven to Aaron		Next Service	Due				
Total Fuel Used				by 10:00 AM 6	every Monday							
Gallons Per Hour							Posted					

#### CITRUS COUNTY SOLID WASTE MANAGEMENT EQUIPMENT OPERATOR SERVICE REPORT

Equipment Number: 19711	WEEK	OF:					TO:					
Daily Service Checks / Prior to Use	Monda	ıy	Tues	sday	Wedi	nesday	Thu	rsday	Frie	day	Sat	urday
Beginning Hours / Ending Hours												
No visible oil or water leaks												
Engine Oil, brake fluid & hydraulic fluid levels												
Hydraulic Lines and fittings (wear / crimping)												
Lift and tilt cylinders (damage or leaking fluids)												
Tires (no excessive wear / splitting, etc.)												
Radiator coolant overflow level												
Horn & Backup alarm												
Seat belt & parking brake alarms												
Parking brake												
All dash lights on with key is turned on												
Outside lights and backup lights operating												
Air filter cleaned every 10 hours												
Check fire extinguisher (gauge & pin)												
Diesel Fuel Level / Gallons Added												
Grease tilt socket pins (2) every 50 hours												
Grease tie rod pins (4) every 50 hours												
Grease mass support (2) every 50 hours												
Grease lift chains (2) every 50 hours												
Lube lift chains w / engine oil every 50 hours												
Grease king pins (4) every 50 hours												
Initials:												
Operator Comments:		"Have you greased and cleaned					" YOUR " m	achine la	tely"			
Tagged out of service:		Yes		No								
Total Hours Operated				Must be gi	ven to Aaron		Next Service	Due				
Total Fuel Used				by 10:00 AM	every Monday							
Gallons Per Hour							Posted					

#### Generators

Equipment Number:	#15326	Olympian										
	#51488	Generac										
OPERATOR DAILY CHECKS & SERVICE	#14125	Dayton										
Start:												
Finish:	WEEI		_				TO:					
	Mon	iday	Tue	sday I	Wedn	esday	Th	ursday	Frida	ay	Satu	rday
Daily Walk Around Inspection												
Time Start												
Beginning Hours												
Refuel Hours												
Ending Hours												
Fuel Added, Gallons / Propane %												
Check / Top-off Engine Oil												
Check Coolant Level / Radiator												
Check Drivetrain For Leaks												
Check Tires (If Equipped)												
Clean Primary Engine Air Cleaner												
Initials												
Operator Comments:			"Hav	e you gre	ased and o	cleaned "	YOUR "	machine la	ately"			
Total Hours Operated				Must be giv	ven to Aaron		Next Service	e Due				
Total Fuel Used				by 10:00 AM	every Monday							
Gallons Per Hour				Posted								

Equipment Number:	55070 Doosan Light Tower											
OPERATOR DAILY CHECKS & SERVICE												
Start:												
Finish:	WEE						TO:					
	Mon	day	Tue	sday	Wedn	esday	Thu	rsday	Frid	ay	Satu	ırday
Daily Walk Around Inspection												
Time Start												
Beginning Hours												
Refuel Hours												
Ending Hours												
Fuel Added, Gallons												
Check / Top-off Engine Oil												
Check Coolant Level / Radiator												
Check Drivetrain For Leaks												
LUBRICATE every 10 hours												
Check Tires												
Clean Engine Air Cleaner												
Clean Primary Engine Air Cleaner												
Check Mast Wiring and Cables												
Check Lights												
Initials												
Operator Comments:			"Hav	e you grea	ased and d	cleaned "	YOUR " n	nachine la	tely"			
Total Hours Operated				Must be giv	en to Aaron		Next Service	Due				
Total Fuel Used					every Monday							
Gallons Per Hour							Posted					

Equipment Number:	52180	Kubota RTV	900									
	52179	Kubota RTV	900									
OPERATOR DAILY CHECKS & SERVICE												
Start:												
Finish:	WEEK	OF:					TO:					
	Mono	lay	Tue	sday	Wedn	nesday	Thu	rsday	Frid	lay	Satu	urday
Daily Walk Around Inspection												
Beginning Hours												
Refuel Hours												
Ending Hours												
Fuel Added, Gallons												
Check / Top-off Engine Oil												
Check Coolant Level / Radiator												
Check Hydraulic Oil Level												
Check Transmission Oil Level												
Check Drivetrain For Leaks												
Remove Debris From Pinch Areas												
LUBRICATE every 50 hours												
Clean Machine and Cab Interior												
Tire Pressure / Tread Condition												
Clean Primary Engine Air Cleaner												
Initials												
Operator Comments:			"Hav	e you gre	ased and	cleaned '	' YOUR " I	machine l	ately"			
Total Hours Operated				Must be given	ven to Aaron		Next Service	Due				
Total Fuel Used					every Monday							
Gallons Per Hour							Posted					

Equipment Number: 53196											
Lube Trailer											
OPERATOR DAILY CHECKS & SERVICE											
Start:											
Finish:	WEEK OF:					TO:					
	Monday	Tueso	lay	Wedn	esday	Thu	ırsday	Frid	ay	Satu	rday
Daily Walk Around Inspection											
Time Start											
Check Drivetrain Wheels / Tires											
Check all Tanks, Leaks, Lines & Connections											
Check Compressor, Fuel, Air Filter, Belts, Drain											
Fuel Added, Gallons for Compressor											
Check all Hose Reals, Pumps, Filters, Gauges											
Check Rear Enclosure, Rollup Door and Clean											
Check Solar Panel, Clean, Damage											
Check Grease Pump, Lines, Gun & Level											
Check Battery											
Check Fire Extinguisher											
D.E.F											
Water											
Initials											
Operator Comments:		"Have	you greas	ed and d	cleaned "	YOUR "	machine lat	ely"	•		
Total Hours Operated			Must be given	to Aaron		Next Service	e Due				
Total Fuel Used		b	y 10:00 AM eve								
Gallons Per Hour						Posted					

Equipment Number:	#17286 Acme Pu	ımp									
	#53447 Heidra Po										
OPERATOR DAILY CHECKS & SERVICE	#51130 Yanmar F	Pump									
Start:											
Finish:	WEEK OF:					то:					
	Monday	Tue	esday	Wedn	esday	Thu	ırsday	Frid	lay	Satu	ırday
Daily Walk Around Inspection											
Time Start											
Beginning Hours											
Refuel Hours											
Ending Hours											
Fuel Added, Gallons											
Check / Top-off Engine Oil											
Check Coolant Level / Radiator											
Check Hydraulic Lines / Oil Level											
Check Drivetrain For Leaks											
LUBRICATE every 10 hours											
Drain Fuel Filter Water Separator											
Check Tires (If Equipped)											
Clean Primary Engine Air Cleaner											
Pump to Tanks / Pump to DRA											
Storage Tanks Level Starting / Ending											
Initials											
Operator Comments:		"Hav	e you gre	ased and o	cleaned "	YOUR " ı	machine la	ately"			
Total Hours Operated			Must be ai	ven to Aaron		Next Service	Due	_			
Total Fuel Used				every Monday							
Gallons Per Hour						Posted					

# Appendix G LFG Monitoring Form

### CITRUS COUNTY CENTRAL LANDFILL LANDFILL GAS MONITORING RESULTS

#### General Data

#### Gas Monitoring Probes (Wells) and Structures

Date:	Sampler:	
Time:	Sky Conditions:	
Air Temperature (deg C):	Measuring Device:	Eagle RKI (SN E084039)

Sampling Data

							Methane	
Station I.D.	Date Sampled	Time Sampled	Depth of Intake (Feet)	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Typ
GP-1			20					Gas Well
GP-1			40					Gas Well
GP-2			20					Gas Well
GP-2			40					Gas Well
GP-3			20					Gas Well
GP-3			40					Gas Well
GP-4			20					Gas Well
GP-4			40					Gas Well
GP-5			20					Gas Well
GP-5			40					Gas Well
GP-6			20					Gas Well
GP-6			40					Gas Well
GP-7			20					Gas Well
GP-7			40					Gas Well
GP-8			20					Gas Well
GP-8			40					Gas Well
GP-9			20					Gas Well
GP-9			40					Gas Well
GP-10			20					Gas Well
GP-10			40					Gas Well
GP-11			20					Gas Well
GP-11			40					Gas Well
GP-12			25					Gas Well
GP-12			50					Gas Well
GP-12			75					Gas Well
GP-13			25					Gas Well
GP-13			50					Gas Well
GP-13			75					Gas Well
GP-14			25					Gas Well
GP-14			50					Gas Well
GP-14			75					Gas Well
GP-15			25					Gas Well
GP-15			50					Gas Well
GP-15			75					Gas Well
GP-16			25					Gas Well
GP-16			50					Gas Well
GP-16			75					Gas Well

### CITRUS COUNTY CENTRAL LANDFILL LANDFILL GAS MONITORING RESULTS

#### General Data

#### Gas Monitoring Probes (Wells) and Structures

Date:	Sampler:	
Time:	Sky Conditions:	
Air Temperature (deg C):	Measuring Device:	Eagle RKI (SN E084039)

Sampling Data

						Methane		
Station I.D.	Date Sampled	Time Sampled	Depth of Intake (Feet)	O2 %Volume	CO2 %Volume	Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
GP-17			25					Gas Well
GP-17			50					Gas Well
GP-17			75					Gas Well
GP-18			25					Gas Well
GP-18			50					Gas Well
GP-18			75					Gas Well
GP-19			25					Gas Well
GP-19			50					Gas Well
GP-19			75					Gas Well
GP-20			105					Gas Well
GP-21			115					Gas Well
GP-22			70					Gas Well
GP-23			100					Gas Well
GP-24			70					Gas Well
GP-25			100					Gas Well
GP-26			70					Gas Well
GP-27			100					Gas Well
GP-28			70					Gas Well
GP-29			100					Gas Well
GP-30			105					Gas Well
GP-31			40					Gas Well
GP-32			40					Gas Well
GP-33			40					Gas Well
GP-34			40					Gas Well
Admin Building			-					Structure
Scale House			-					Structure
Shop			_					Structure
Storage Shed			_					Structure
Mod Building			-					Structure
Equipment Building			-					Structure
Electronics Container			-					Cargo container
Chemical Container #1			-					Cargo container
Haz Waste Drop Off Ctr			-					4 Structures
Paints Container			-					Cargo container
Chemical Container #2			-					Cargo container
Firing Range			-					2 Sheds

## LANDFILL GAS MONITORING CITRUS COUNTY CENTRAL LANDFILL

#### **General Data**

Date:	Sampler:
Time:	Sky Conditions:
Air Temperature (deg C):	Measuring Device:

#### Sampling Data

Station I.D.			CO2 %Volume	Met		
	Time Sampled	O2 %Volume		Peak Recorded Concentration as % LEL	Peak Recorded Concentration as % Volume	Station Type
MW-1R						GW Well
MW-2						GW Well
MW-3						GW Well
MW-5						GW Well
MW-6						GW Well
MW-7						GW Well
MW-8R						GW Well
MW-9						GW Well
MW-10						GW Well
MW-11						GW Well
MW-12						GW Well
MW-13						GW Well
MW-14						GW Well
MW-15						GW Well
MW-16						GW Well
MW-17						GW Well
MW-18						GW Well
MW-19						GW Well
MW-20						GW Well
MW-21						GW Well
MW-AA						GW Well
MW-B						GW Well
MW-E						GW Well
PZ-1						GW Well
PZ-2						GW Well