

Johnson, Kelli

From: Cusher, Annette
Sent: Monday, April 4, 2022 9:44 AM
To: OLRAdmin
Subject: FW: Garland County Class 4 Landfill Update to Operating Plan (B&F No. 7-2852-1005) (AFIN 26-00149; 0300-S4)
Attachments: Operating Plan Narrative Rev 4-1-2022.pdf
Follow Up Flag: Follow up
Flag Status: Flagged

From: John Rogers [<mailto:johnr@bnfeng.com>]
Sent: Monday, April 4, 2022 9:43 AM
To: Cusher, Annette
Cc: Darryl Mahoney; Billy Sawyer
Subject: Garland County Class 4 Landfill Update to Operating Plan (B&F No. 7-2852-1005) (AFIN 26-00149; 0300-S4)

Ms. Cusher,

Please see the attached updated Operating Plan for the Garland County Class 4 Landfill pursuant to Reg. 22.6819(c).

Thank you,

John W. Rogers, PE
Project Professional Engineer
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OPERATING PLAN AND NARRATIVE

GARLAND COUNTY CEDAR GLADES CLASS 4 SOLID WASTE LANDFILL

Prepared For:

**Garland County Solid Waste Department
Hot Springs, Arkansas**

Prepared By:

**B & F Engineering, Inc.
928 Airport Road
Hot Springs, Arkansas 71913**

April 1, 2022

B & F No. 7/2852/1005

1.0 INTRODUCTION

1.1 GENERAL INFORMATION

1.1.1 Background

This document provides operating and maintenance procedures for the Garland County Cedar Glades (GCCG) Class 4 Landfill. The Garland County Solid Waste Department currently owns and operates a Class 4 landfill in Garland County, Arkansas. The facility, Garland County Wildcat Road Class 4 Landfill (Permit No. 152-SR-1), was originally permitted as a Class 1 Landfill in 1979. Closure of the Class 1 Landfill was completed in 1990 and Permit No. 152-SR-1 was assigned to the adjoining Class 4 landfill operations. The proposed GCCG Class 4 Landfill is approximately 616 acres and is to be located about ½ mile south of the existing permitted facility.

1.1.2 Purpose

This Operating Plan and Narrative has been prepared to comply with the Arkansas Department of Environmental Quality (ADEQ), Arkansas Solid Waste Management Code, Regulation 22 (April, 1995). This manual directs the operation of the GCCG Class 4 Landfill Facility in accordance with all required permits and regulations.

1.1.3 Scope

This Operating Plan and Narrative has been prepared to assist all that have a part in the operation and maintenance of the GCCG Class 4 Landfill Facility. This document includes procedures for the following:

- site development,
- waste disposal,
- inspection and maintenance,
- health and safety,
- emergency response and contingency action,
- administrative requirements,
- landfill closure, and
- post-closure.

This document is divided into eight sections. A brief description of these sections is provided below.

- Section 1 - Introduction: provides general information regarding the GCCG Class 4 Landfill Facility and this document.
- Section 2 - General Operating Procedures: provides operating information for the landfill facility such as landfill equipment and personnel requirements, hours of operation and signage, access control, waste screening procedures, prohibited activities, and survey control.

- Section 3 - Landfill Operating Procedures: provides an explanation of the operating and maintenance procedures specifically related to the landfill area.
- Section 4 - Stormwater Management System Procedures: provides an explanation of the operating and maintenance procedures for the stormwater management system of the landfill area.
- Section 5 - Inspection and Maintenance: explains the methods for conducting periodic inspections of the various facilities associated with the landfill.
- Section 6 - Health and Safety: describes possible health related hazards, abatement procedures, and emergency response procedures.
- Section 7 - Record Keeping and Reporting: provides an explanation of the facility permanent operating record system and reporting procedures.
- Section 8 - Closure and Post-Closure Care Plan: explains the procedures associated with the landfill closure plan and post-closure care.

1.1.4 Relationship to Other Facility Documents

This document will guide the operation and maintenance of the GCCG Class 4 Landfill Facility. It should be used in connection with the following supporting documents to ensure efficient and effective operation of the solid waste facility:

1. *40 CFR 258 (Subtitle D, October 9, 1991);*
2. *Arkansas Regulation 22 - Solid Waste Management (April 1995);*
3. *Solid Waste Disposal Facility Criteria - Technical Manual (EPA, November 1993); and,*
4. *Permit Application for GCCG Class 4 Landfill (June 2000).*

This Operating Plan and Narrative shall be updated over time to reflect current operations and regulations. Revisions to this document shall be submitted to the ADEQ for review and approval. The ADEQ may require that the changes be accomplished through permit modification prior to implementation. All applicable requests, approvals, and other correspondence shall be maintained in the facility permanent operating record.

1.2 FACILITY DESCRIPTION AND DESIGN

The GCCG Class 4 Landfill is designed to conform with Arkansas Regulation 22. The facility has five waste cells that range from approximately three (3) acres to about 17 acres in size. The first cell was approximately 750 by 750 feet as shown on the Permit Plans. The waste cells have been designed with a compacted low permeability soil liner system. If the excavated surface established during cell development qualifies as the low permeability soil liner, then additional layers of liner material will not be required. Each waste cell is also designed to include a soil final cover system. The final cover system includes a compacted low permeability soil cap and a vegetative layer. The purpose of the final cover system is to reduce infiltration into the landfill and to promote stormwater run-off.

The landfill also has a stormwater control system. The system diverts stormwater from entering the landfill and promotes run-off into the settling ponds.

The components of the landfill are described in further detail below.

1.2.1 Liner System

The liner system of each cell of the landfill consists of a minimum of 18-inch thick compacted low permeability soil liner with a maximum hydraulic conductivity of 1×10^{-5} centimeters per second (cm/s). The low permeability soil liner is constructed over the entire surface of each cell as the cell progresses. The configuration of the bottom grades of each cell is presented in the Permit Plans. The qualified low permeability soil material excavated from the cells is used to construct the liner system. The soil used for the liner system consists of materials that meet the requirements for hydraulic conductivity when compacted in the field or laboratory (1×10^{-5} cm/s), Atterberg limits (Plastic Index greater than ten), and grain size (greater than 20 percent passing U.S. Sieve #200).

The compacted low permeability soil liner system is constructed under the guidelines of the facility Construction Quality Assurance Plan (**Section 19**).

1.2.2 Final Cover System

The final cover system for the GCCG Class 4 Landfill consists of (from bottom to top) a minimum 18-inch thick compacted low permeability soil barrier layer with a hydraulic conductivity of no greater than 1×10^{-5} cm/s and a minimum six-inch thick erosion layer that is capable of supporting vegetation. The landfill final cover plan is shown on the Permit Plans. As indicated on the drawing, the minimum grade on the final cover is four percent and the maximum grade is 25 percent.

The final cover system is constructed in stages over areas of the landfill as final grades are achieved. In general, each construction phase indicated on the permit drawings will establish final grades along the perimeter of the landfill as the wastes are deposited.

The final cover design includes surface water runoff control berms designed to direct water from the upper slope area to letdowns that direct water down the slope. Letdown structures are lined with riprap for erosion control. Additional measures shall be taken if erosion occurs in any component of the surface water control system. These measures include but are not limited to the installation of rock lining, hay bales, erosion matting, and vegetative cover.

1.2.3 Stormwater Management System

Stormwater run-on and run-off within the landfill area shall be directed away from the disposal facility by letdown structures and perimeter ditches to the stormwater settling ponds. Diversion berms, letdown structures, erosion control devices, and prompt seeding of the completed waste cells shall reduce the potential of erosion on the finished landfill slopes. Operating procedures for the Stormwater Management System are described in more detail in **Section 4.0** of this document.

2.0 GENERAL OPERATING PROCEDURES

The operating procedures in this section address the basic operating procedures for the GCCG Class 4 Landfill. They are intended to serve as a reference and directive associated with efficient, effective operation and use of the waste disposal area.

2.1 LANDFILL PERSONNEL AND EQUIPMENT

2.1.2 Operator Certification

Daily landfill operations shall be performed under the direction of an Arkansas - licensed landfill operator. Licensing, training, and certification updates shall comply with the requirements of Arkansas Regulations 22 and 27.

2.1.2 Equipment and Personnel Requirements

Equipment and personnel needs vary depending on the quantities of waste requiring disposal. TABLE 2.1 lists the typical equipment and personnel associated with the operation of the landfill. The amount of equipment and personnel at the landfill will vary depending on the daily activities. The GCCG Class 4 Landfill operator is responsible for supplying adequate personnel and equipment to operate the landfill. Additional personnel and equipment shall be supplied for the facility as necessary.

TABLE 2.1 TYPICAL LANDFILL EQUIPMENT AND PERSONNEL REQUIREMENTS		
EQUIPMENT/PERSONNEL	TYPICAL QUANTITY	PURPOSE/USE
Equipment		
816K Compactor	1	Used for general site grading work and to spread cover soil over waste areas.
850K JD	1	Used to excavate and load cover soils.
Scraper/John Deere 210GLC Track Hoe	1 to 3	Used to haul waste materials to working face and to haul cover soils.
Personnel		
Landfill Manager	1	Manages operations of the landfill. Provides required paperwork associated with management of the facility.
Landfill Operators	1 to 2	Perform operations of the landfill including directing waste placement, earthwork, and general facility maintenance.
Truck Drivers	Varies	Drive waste hauling vehicles and dump trucks for transporting cover soils.
Bull Dozer D4K Cat	1	Spreading and Compaction

2.2 HOURS OF OPERATION AND SIGNAGE

The GCCG Class 4 Landfill Facility normal operation hours are 7:00 a.m. – 4:00 p.m., Monday – Friday and 7:00 a.m. – 1:00 p.m. on Saturday. A certified landfill operator shall be present on-site during disposal operations.

A sign shall be posted at the site entrance to provide the following information:

- facility permit number,
- name of site,
- types of waste accepted,
- unacceptable materials, and
- emergency telephone numbers.

2.3 ACCESS CONTROL

Access to the landfill is controlled and managed by employees of GCCG Class 4 Landfill. Access to the working faces of the landfill is via the permanent perimeter road at the landfill. Temporary access roads are constructed by GCCG on an as-needed basis.

The roads shall be maintained as necessary to provide access during periods of inclement weather.

Landfill operators shall prohibit any unauthorized access to the landfill area. Security monitoring devices shall be installed and a regular sheriff's patrol shall further deter unauthorized entry and abuse of the facility. A night watchman/station operator shall be hired to live on-site.

2.4 WASTE SCREENING PROCEDURES

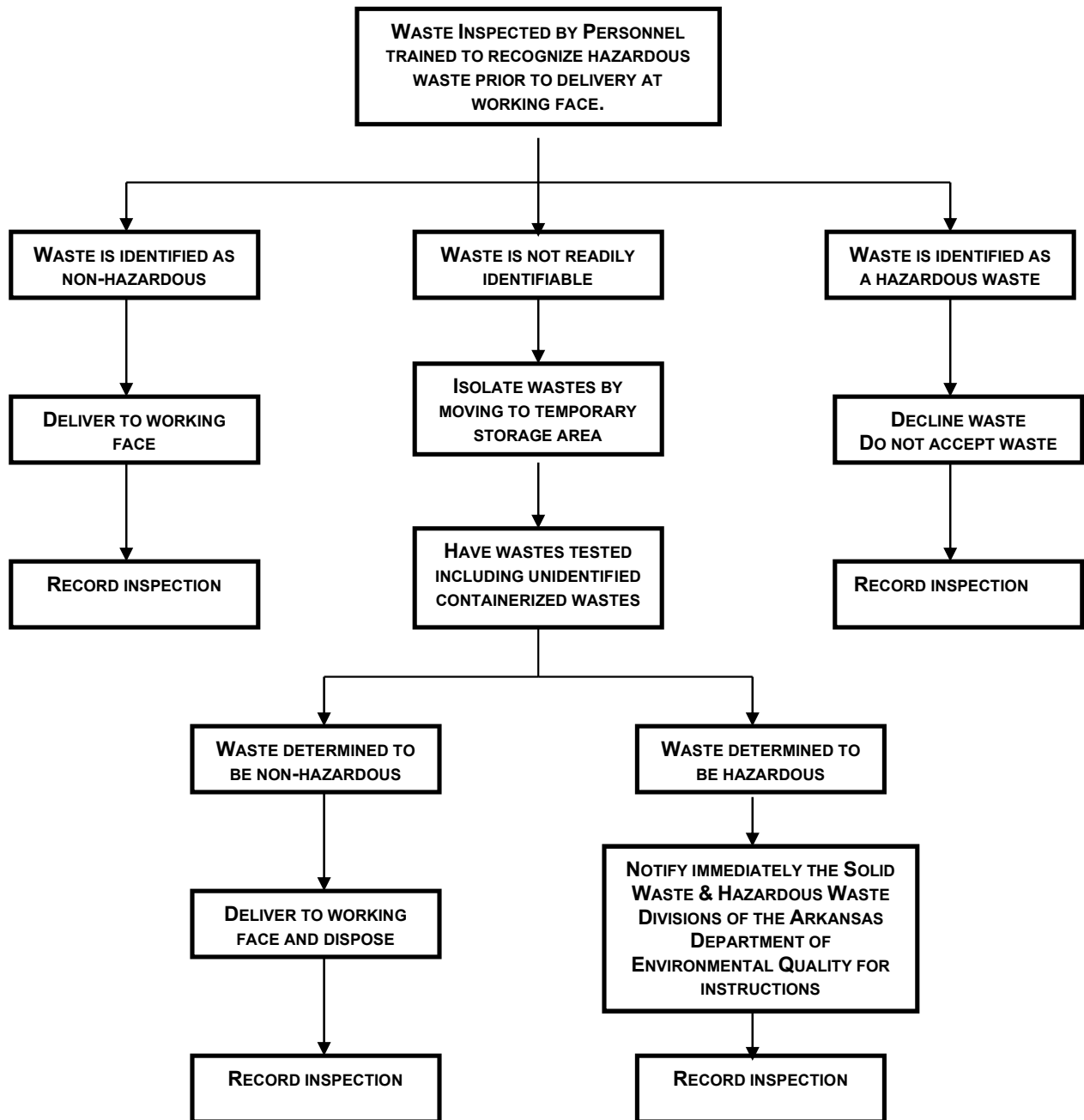
2.4.1 Acceptable Waste

Only household Class 4 and commercial Class 4 waste generated from Garland County shall be accepted without special approval of the Garland County Subordinate Service District (GCSSD). No industrial process waste or infectious waste shall be accepted unless specifically approved by the Arkansas Department of Environmental Quality. No regulated hazardous wastes and polychlorinated biphenyls (PCB) waste as defined in Arkansas Regulation 23 shall be accepted without the Department approval and instructions. Class 1 solid waste shall be transferred to a Class I disposal facility.

2.4.1 Screening Process

Screening of incoming waste in order to identify any unacceptable waste shall be done on a continuous basis. A hazardous waste inspection flow chart is presented in Figure 2.1

FIGURE 2.1 HAZARDOUS WASTE INSPECTION FLOW CHART



Personnel trained to recognize hazardous waste shall perform two levels of inspection.

Level One: Random inspections of loads shall take place at the GCCG Class 4 Landfill scales prior to delivery at the working face.

Level Two: All loads delivered to the facility in vehicles not participating in the County's collection system shall be thoroughly inspected and the driver questioned about the nature of the waste prior to the unloading of any waste. Any suspicious loads shall be rejected until adequate documentation is provided to prove that the load in question is not considered a special or hazardous waste.

In the event that a special or hazardous waste is identified, both the Solid Waste Division and Hazardous Waste Divisions of the Arkansas Department of Environmental Quality shall be notified immediately for instruction; and an entry shall be made in the operating records. The entry shall state where the waste originated, name of the driver, license number of the delivery vehicle, type of material, and if any other waste on site is suspected of being or has been contaminated. An effort shall be made to detain the vehicle until a disposal option is determined. If additional contamination is suspected, the facility shall be closed and secured until corrective actions are completed and approved by the Department. A record entry shall also be made to indicate completion of any corrective actions required.

2.5 PROHIBITED ACTIVITIES

The following activities are prohibited at the landfill:

- Scavenging of materials from the landfill face;
- Feeding of farm or domestic animals on landfill property;
- Open burning of waste material with the exception of controlled burning of marijuana plants for the Garland County Sheriff's Office (approximately three (3) times per year); and,
- Depositing waste in standing water.

2.6 SURVEY CONTROL

Horizontal and vertical controls must be maintained during the life of the landfill. These points are necessary so the landfill can be constructed and filled according to the design of the facility. The locations of the permanent survey control points, the plant control points, and a grid system established for landfill construction and operation are indicated on the Permit Plans. If any of the permanent monuments for the site are damaged or destroyed they shall be re-established.

Temporary grid markers that delineate the limits of the active waste area are installed during the construction of the landfill areas. These markers are located near the waste cell boundaries.

3.0 LANDFILL OPERATING PROCEDURES

Construction and operation of the landfill is an ongoing activity throughout its life. Construction often takes place at recurring intervals. Ongoing construction activities include development of new waste areas; repair and expansion of access roads and drainage facilities; waste filling; and, installation of the landfill cover system.

This section of the Operating Plan and Narrative provides guidance to those individuals involved with the daily operations specifically related to the disposal area of the landfill facility.

3.1 WASTE FILLING OPERATIONS

3.1.1 Placement of Waste

A certified landfill operator shall be on-site to direct disposal activities. The location for disposal of waste from transportation vehicles varies during the life of a waste cell. For the initial placement of waste in a new waste cell, the disposal vehicles haul the waste near the bottom area of the cell for disposal. The waste trucks access the active disposal area via temporary roads. After the waste truck dumps the waste in the active disposal area, it is spread and lightly compacted into a five to ten foot high lift by a bulldozer. Additional compaction will be provided by compaction equipment. The working face is held to a minimum size and progressively moves across the active landfill cell until each lift is completed. Subsequent lifts of waste are constructed similarly until the waste mass reaches the permitted waste grades as shown on the Permit Drawings.

The waste mass is graded such that internal interim slopes are 3 (horizontal) to 1 (vertical), and external (final) slopes are 4 (horizontal) to 1 (vertical). Once the interim grades of Phases one through five have been established (see **Drawing P-04** of the permit drawings), a final phase which establishes grades over the top of the landfill will be completed.

Temporary stormwater berms are constructed along the ridgeline between waste cells to contain wastes to the active waste cell and to minimize stormwater run-on. Waste is placed up to the inside toe of the berm.

3.1.2 Site Capacity and Service Life

The planned final maximum elevation of the landfill is approximately 630 feet National Geodetic Vertical Datum (NGVD). The total capacity of the landfill is approximately 5.25 million cubic yards not including final cover.

Approximately 62,000 cubic yards of material are currently generated for disposal in the landfill per year. Using this disposal rate, and assuming an annual waste stream growth of four (4) percent, the estimated service life of the landfill is 40.5 years.

3.2 BOTTOM LINER SYSTEM CONSTRUCTION

The GCCG Class 4 Landfill is designed with a bottom liner consisting of an 18-inch thick compacted low permeability soil liner over a prepared subgrade. The bottom liner system is constructed in accordance with the facility *Construction Quality Assurance Plan* (May 2000). A copy of the plan is included in the facility permit application document and the facility permanent operating record. The prepared subgrade layer may qualify as the bottom liner if the criteria set forth in the *Construction Quality Assurance Plan* are met.

3.3 FINAL COVER CONSTRUCTION

The final cover system for the GCCG Class 4 Landfill consists of the following configuration from bottom to top:

- Compacted low permeability soil (18 inches),
- Top soil (6 inches), and
- Vegetative layer of perennial grasses.

The cover system shall be installed in phases in accordance with the landfill *Construction Quality Assurance* (CQA) Plan. As each waste cell is filled to permitted final waste grades, low permeability soils from on-site stockpiles or borrow areas shall be transported to the completed areas. The low permeability soils shall be compacted in six to eight-inch lifts to meet the maximum permeability criteria of 1×10^{-5} cm/s. The six-inch thick topsoil layer shall be placed over the protective cover layer. After the topsoil is graded, it shall be mulched, fertilized, and seeded with native grasses.

Procedures for seeding the vegetative cover are outlined in **Section 4.2** of this document.

Construction of the final cover system shall be done in accordance with the facility CQA Plan.

Upon completion of the installation of the cover system, erosion control devices such as hay bale check dams, silt fences or erosion control matting may be installed in areas where excessive erosion may occur such as side-slopes, discharge locations of stormwater structures and drainage channels.

4.0 STORMWATER MANAGEMENT PROCEDURES

A stormwater management system is used at the GCCG Class 4 Landfill site to control run-on and runoff. The system is designed to minimize erosion and induce settling of suspended sediments. The primary erosion and sediment control measure is the presence of a vegetative cover on the finished landfill slopes provided by seeding. Other stormwater management system components include diversion berms and perimeter ditches.

Stormwater runoff within the waste areas is directed away from the finished landfill slopes by a combination of diversion berms, letdown, culverts and perimeter ditches, and is routed to small settling ponds. In addition to prompt seeding of completed waste areas, diversion berms help reduce the potential of erosion of the finished landfill slopes. Eventually stormwater attenuates in a large 4 acre NPDES permitted pond ahead of Bear Cat Hollow Creek.

Erosion and sediment control measures such as silt fences, hay bale or rock check dams, and erosion control matting may be used to reduce the potential for excessive sedimentation problems.

4.1 WATER CONVEYANCE

Peak flows from the 25-year, 24-hour storm shall be contained by the on-site settling pond system.

All watercourses are designed to reduce erosion. Normally, ditches and swales shall be grass-lined, and shall have a maximum gradient of five (5) percent. Steeper sloped portions of ditches shall be rock-lined or use erosion control matting, letdowns, or other appropriate measures.

4.2 SEEDING

Permanent seeding of the landfill cover shall be conducted in late winter and fall (typically during February through April, and September through November) on recently completed waste cells and areas requiring additional grass cover. Operations are typically timed to provide the maximum area available for seeding operations. Operations include preparation of the seedbed, applying fertilizer or lime as necessary, applying seed blend, and applying mulch as necessary.

The local county extension service office and/or the AHTD standard specifications may be contacted for suggestions for the seedbed preparation and seeding blends.

4.3 EROSION CONTROL MEASURES

Both temporary and permanent erosion control measures are required to mitigate the potential for severe erosion, and are part of the active maintenance program at the landfill. In addition to seeding, other erosion control measures include the following stormwater letdowns, lined ditches, and grassed swales.

Temporary erosion control measures are used as necessary to reduce erosion of exposed slopes on waste disposal areas, berms, or stockpiles. Temporary erosion

control measures that are used depend on the time of year and the length of time it is anticipated that the soil will remain exposed. These temporary controls include the following:

- seeding,
- tracking slopes perpendicular to the flow,
- covering with mulch,
- grass mats, and,
- diversion ditches and stormwater letdowns.

Tracking of slopes (bulldozer tracks made perpendicular to the fall line of the slope) is completed as soon as the slope is finished, regardless of the time of year. Mulching of exposed slopes is done during wet weather conditions when seeding is not possible. Diversion ditches and slope drains shall be constructed as necessary to prevent surface water flow from eroding exposed and covered slopes as well as preventing runoff generated on surrounding land from running into the active areas of the landfill.

4.4 SEDIMENTATION CONTROL

All erosion control measures mitigate off-site sedimentation by reducing the amount of soil carried away in the run-off. Additional sedimentation controls include sediment barriers.

Sediment barriers include hay bales and silt fencing. They require no engineering design, and are placed as needed during operations. They are most frequently placed below disturbed slopes to prevent silt in overland flow from reaching channels or ditches.

Sediment control fences shall also be constructed and maintained in the drainage channels of the active areas of the site. Sediment shall be removed to keep channels open and the soil replaced at the source as required.

4.5 SYSTEM MAINTENANCE PROCEDURES

It is very important that the stormwater management system at the site is maintained so that it may function properly during a storm event. The following maintenance is recommended especially after large storm events.

- Keep all ditches and swales unobstructed.
- Remove sediment from ditches, swales, sediment basins, and sediment barriers routinely. Sediment controls are most effective when sediment is removed regularly.
- Check and clean rock check dams and outlet control structures of sediment and other materials that may restrict flow.
- Periodically inspect the stormwater system for damage and repair immediately.
- Inspect and clean the stormwater system following a major storm event.

Additional inspection and maintenance requirements and procedures are included in **Section 5.0** of this Operations and Maintenance Manual.

5.0 INSPECTION AND MAINTENANCE PROCEDURES

Inspections and maintenance of the GCCG Class 4 Landfill are performed routinely. Records of inspections conducted by GCCG personnel, and of any actions taken are kept on the Operations Inspection Form, which is included in **APPENDIX 17-A** of this document. An inspection and maintenance schedule is included in TABLE 2 of this section. Inspection records are placed in the Permanent Operating Record and are available for review.

TABLE 5.1 INSPECTION AND ROUTINE MAINTENANCE SCHEDULE CHECKLIST	
ITEM	MINIMUM FREQUENCY
Liner System	Monthly
Stormwater Facilities	Monthly
Final Cover System	Monthly
Facility Roads	Annually
Emergency Response Equipment	Periodically
Waste Cell Markers	Monthly
Survey Control Monuments	Monthly
Equipment	Monthly

5.1 LINER SYSTEM

GCCG shall inspect the landfill liner system monthly for defects. Lined areas that are exposed and not receiving waste shall be inspected for damage. Protective cover and the erosion layer shall be inspected for erosional cuts. Any damage found in the liner system shall be repaired as necessary.

5.2 STORMWATER FACILITIES

Stormwater facilities such as ditches, letdowns, and culverts shall be inspected monthly, and cleaned or repaired as necessary.

5.3 FINAL COVER SYSTEM

The landfill final cover system shall be inspected monthly for evidence of erosion, cracking or surface depressions. Where severe erosion has taken place, soil cover shall be re-applied and seeded, given the appropriate seeding conditions. Temporary or permanent erosion control measures shall be used if significant erosion occurs. The various types of erosion control methods are discussed in **Section 4.3** of this document.

5.4 FACILITY ROADS

Temporary and permanent access roads shall be maintained regularly to provide easy access, and to control dust and mud accumulations. The facility roads shall be graded periodically to keep rutting, washboarding, mud, and dust accumulation to a minimum. Ground shingles may be applied as necessary to facilitate the control of road dust.

5.5 EMERGENCY RESPONSE EQUIPMENT

Check communication equipment, list of emergency phone numbers, and first aid kits monthly and replace items as necessary. Test fire extinguishers annually and check condition once a month.

5.6 WASTE CELL MARKERS

Inspect waste cell markers monthly, and repair or replace as necessary.

5.7 SURVEY CONTROL MARKERS

The survey control markers shall be inspected annually as part of the annual engineering certification. Markers shall be re-established as necessary.

5.8 EQUIPMENT

Routine operational maintenance of the equipment used at the landfill shall be provided.

5.9 ENGINEERING INSPECTION REPORT

A registered professional engineer shall inspect the landfill site at least annually and prepare a report addressing operational compliance with permit conditions, permit plans, and specifications and the narrative. The requirements of this report are discussed in **Section 7.3.2**.

6.0 HEALTH AND SAFETY PROCEDURES

6.1 INTRODUCTION

The primary purpose of this section is to help prevent personal injuries or illnesses that may be caused by conditions typically found at a Class 4 landfill. It is not the intent of this section to establish a comprehensive safety program for GCCG Class 4 Landfill; rather to augment the existing program with awareness of special hazards related to landfills.

6.1.1 General

The GCCG Class 4 Landfill facility should be maintained in such a manner as to continually provide a safe place to work. This can be done only by constantly THINKING SAFETY. Analyze jobs, work areas, and procedures from a safety standpoint, and learn to recognize potentially hazardous actions or conditions. When a hazard has been recognized, immediate steps should be taken to eliminate it by corrective action. If corrective action is not possible, guard against the hazard by proper use of warning signs and devices, and by the establishment and maintenance of safety procedures.

The safety hazards associated with landfill operations are many and varied. Accidents may be prevented by using good common sense, applying a few basic rules, and particularly by becoming knowledgeable of the hazards peculiar to a job.

6.1.2 Reporting and Investigation of Accidents and Illnesses

Accidents must be reported PROMPTLY to the employee's immediate supervisor for evaluation and/or investigation. Immediate reporting is mandatory not only to comply with applicable laws and regulations, but also to ensure that steps are taken to correct the conditions that contributed to the accident. Since every accident includes a sequence of contributing factors, it is possible to avoid a repeat of the first event by recognizing and eliminating these factors. The removal of just a single factor could prevent a recurrence.

6.2 POTENTIAL HAZARDS

Solid waste personnel work in all types of weather, with many different types of heavy equipment, and with a variety of materials presenting diverse hazards. For this reason, safety equipment must be used and maintained in a sanitary and reliable condition. First-aid kits shall be easily accessed at the facility.

6.3 HAZARD ABATEMENT PROCEDURES

The following procedures, guidelines, and recommendations represent standards in the landfill industry presently in use to mitigate or eliminate the various safety and health hazards, which may exist at the GCCG Class 4 Landfill.

6.3.1 Personal Protective Equipment.

Personal protective equipment must be worn as necessary whenever hazards of processes or environment are capable of causing injury.

6.3.1.1 Operations Safety

Transporting and unloading solid waste is a serious area of safety concern. Uncontrolled dust, differing flows and direction of traffic and operational equipment, and equipment operation angles pose dangers to those in the vicinity of the working face. For these reasons, safeguards shall be provided on landfill equipment to protect the operator and the vehicle. Landfill operating personnel who direct the placement of the delivery vehicles must take care to maintain sufficient clearance between the vehicle and the landfill equipment. Normal safety precautions shall be exercised while operating or working in the vicinity of heavy equipment.

6.3.2 Fire Prevention and Control

Daily spreading compaction and cover of disposed solid waste shall be used as a means of fire prevention. In the event that a fire does occur, landfill operators shall attempt to control it as soon as possible by:

- covering it with soil,
- removing and covering it with soil, or
- using a fire extinguisher, or
- using a tanker truck with pump and hose.

Portable fire extinguishers are kept on all landfill operating equipment and at the transfer station office. Personnel shall be trained in the use of these extinguishers and should become familiar with their locations. The extinguishers shall be inspected annually and maintained in a ready condition.

6.4 EMERGENCY PROCEDURES

The emergency conditions discussed in this section are general. It is not intended to cover every possible emergency situation. The site personnel must be constantly aware that problems may arise. A list of important phone numbers should be updated regularly and should be kept at the office. Emergency telephone numbers are as follows:

- All Emergencies call 911
- Security Guard (if present)
- ADEQ Department of Solid Waste: (501) 682-0600
- ADEQ Department of Hazardous Waste: (501) 562-6533

6.5 HANDLING OF UNACCEPTABLE WASTES

Only household Class 4 and commercial Class 4 waste generated from Garland County shall be accepted without special approval of the Garland County Solid Waste Department. No industrial process waste or infectious waste shall be accepted unless

specifically approved by the Arkansas Department of Environmental Quality. No regulated hazardous wastes and polychlorinated biphenyls (PCB) waste as defined in Arkansas Regulation 23 shall be accepted without the Department approval and instructions. Class 1 solid waste shall be transferred to a Class I disposal facility.

Section 2.4 outlines the procedures for handling unauthorized wastes.

7.0 RECORD KEEPING AND REPORTING

7.1 LANDFILL PERMANENT OPERATING RECORD

In accordance with Arkansas Regulation 22, the GCCG Class 4 Landfill shall maintain a Permanent Operating Record (POR), which contains all records required by this regulation or permit conditions. All information contained in the facility operating record is available for inspection and is provided to the Department upon request. All records shall be permanently maintained by GCCG unless the ADEQ Director following the completion of the post-closure monitoring period authorizes the destruction of the records.

The POR includes the following information:

- Permit information, regulations, and operator licenses;
- Location restriction demonstrations;
- Operational plans and programs;
- Construction quality control records;
- Documentation of daily waste quantities;
- Design demonstrations;
- Geotechnical and hydrogeological information;
- Closure and Post-Closure plans and any associated testing data related to the plans;
- Cost estimates and financial assurance documentation; and,
- Enforcement and Administration.

Notifications of the above entries have been or shall be submitted to the Solid Waste Management Division (SWMD) of the ADEQ as required by this section of the regulation. In addition, when documents pertaining to the above items have been placed, replaced, or added to the POR, the SWMD shall be notified in writing.

7.2 INSPECTION LOG

Garland County Solid Waste Department personnel carry out inspections of the overall site, facilities, and operations on a routine basis. Inspections are performed often enough to identify problems in time to correct them before they harm human health or the environment. Inspections also prevent malfunction, deterioration, and operator error from affecting the performance of the facilities and operations.

The frequency of inspections is noted on the inspection checklist (See example checklist located in **Appendix 17-A**). Inspections also are carried out after any major storm event or natural disaster. Inspections of the items in the checklist are recorded in the maintenance log. The inspection checklist and maintenance log shall be kept in the POR. The inspection checklist and maintenance log shall be made available to the Department of Solid Waste of the ADEQ on request.

7.3 REPORTS

7.3.1 Monitoring Results

All records of monitoring activities and results shall be kept for a minimum of three years. Monitoring records shall be kept longer than three years during the course of any unresolved litigation regarding the discharge of pollutants by GCCG or at the request of the Department of Solid Waste of the ADEQ.

7.3.2 Annual Engineering Report

An annual report shall be prepared by a registered professional engineer and submitted to the SWMD of the ADEQ by September 30 of each year. The report shall address the operational compliance with permit conditions, permit plans and specifications and the facility operating narrative. This report shall include the previous year's activities and the following:

- The volume remaining in the current landfill cell or area and the projected date for opening new cells or areas;
- The estimated remaining permitted site life considering the current waste stream;
- Compliance of facility fill progression with the approved permit plans and specifications, and the narrative;
- Compliance with the operating requirements of Arkansas Regulation 22 and the facility permit conditions;
- Changes or proposed changes to the operating plan;
- Maintenance of storm water controls;
- Status of capping and closure of completed waste areas;
- Status of remedial or corrective actions taken; and,
- Any other items impacting permit compliance at the landfill.

7.4 INCIDENT REPORTS

7.4.1 Emergency Reports

GCCG shall submit a written report to the SWMD of the ADEQ within 48 hours after an emergency has occurred at the Class 4 Landfill facility. The report shall describe the emergency and the actions taken to minimize hazards to human health and the environment. The report shall also outline any follow-up procedures that will be implemented. Emergencies include: fires, explosions, storm damage, and any other events requiring the prompt intervention of GCCG, police, fire department, or other public health and safety officials.

7.4.2 Notifying Government Agencies

In the event that GCCG does not, or is not able to, comply with any of the conditions specified in the facility's operating permit, GCCG shall do the following:

- provide the SWMD of the ADEQ with a description of the nature and cause of noncompliance;
- inform the SWMD of the ADEQ of the period of noncompliance, including exact dates and times and/or the anticipated time when the facility will return to compliance;
- notify the SWMD of the ADEQ of steps taken or to be taken to reduce, eliminate, and prevent recurrences of the noncompliance; and,
- take the first three actions listed above within 24 hours in the case of any noncompliance that could constitute a threat to human health, welfare or the environment, and, if the requisite information is provided orally, provide it in writing within 5 days, unless this requirement is waived or extended by the SWMD of the ADEQ on a case-by-case basis.

The SWMD of the ADEQ shall be notified:

- whenever there has been or there is an anticipated violation of the conditions in the operating permit;
- whenever there has been or there is an anticipated material change in the quantity of waste disposed at the facility; and,
- whenever there has been or there is an anticipated material change in the type of waste disposed at the facility.

8.0 LANDFILL CLOSURE AND POST-CLOSURE CARE PLAN

The GCCG Class 4 Landfill *Facility Closure and Post-Closure Care Plan (Section 23)* provides an explanation of the procedures for closure and post-closure care activities. The plan identifies the closure requirements, the procedures for installation of the final cover system, the facility closure schedule, and the documentation requirements for the closure activities. It also identifies the post-closure care monitoring and maintenance requirements, the contact individuals during the post-closure care period, estimates for post-closure care costs, proposed uses of the site, and certification procedures for the post-closure activities.

A copy of this plan is located in the facility POR.

APPENDIX 17-A

Operations Inspection Form

GCCG CLASS 4 LANDFILL Operations Inspection Form

DATE: _____

INSPECTOR: _____

DESCRIPTION	INSPECTION INTERVAL	PASS	FAIL **
Surface Water System	Monthly		
Drainage Ditches & Culverts	Remove debris and		
Berms	sediment as needed		
Landfill Final Cover System	Monthly		
Erosion			
Ponded Water			
Settlement			
Vegetation			
Facility Roads	Monthly		
Safety			
Routing			
Condition			
Mud			
Passable Width			
Emergency Response Equipment			
Fire Extinguisher	Test annually; check monthly		
Communication System	Monthly		
List of Emergency Phone Numbers	Monthly		
First Aid Kits	Monthly		
Waste Cell and Plant Grid Markers	Monthly		
Survey Markers	Annually		
Operational Equipment	Periodically		
Liner System	Monthly		
Erosion			
Defects in Exposed Liner			

** Explain failure on back of form.

**GCCG CLASS 4 LANDFILL
Operations Inspection Form**

DATE: _____

INSPECTOR: _____

NOTES

Surface Water System:

Landfill Final Cover System:

Facility Roads:

Emergency Response Equipment:

Survey Control Systems:

Operational Equipment:

Liner System:

Waste Quantities:

This Month _____ This Year _____ Total _____