# 2004 ANNUAL ENGINEERING INSPECTION REPORT

BFI Model Fill Landfill Permit #151-S1-R4



-IN 60-00565

PMt # 0151-S1-R4

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#### PREPARED FOR:

BFI Waste Systems of Arkansas, LLC. 3817 Mabelvale Pike Little Rock, AR 72204

#### PREPARED BY:

Genesis Environmental Consulting, Inc. 11400 West Baseline Road Little Rock, Arkansas 72209

**Amended June 2005** 



# RESPONSE TO SOLID WASTE DIVISION OF ADEQ April 14, 2005 LETTER

2004 Annual Engineering Inspection Report - Notice of Deficiencies for the BFI Model Fill Class 1 Landfill AFIN 60-00565 Permit No. 0151-S1-R4

#### ADEQ Request #1:

Section 2.2 of the report states that "It should be noted that during the process of preparing the Minor Modification submitted to the ADEQ on November 3, 2004, discrepancies were found in the volume calculations for the remaining capacity of the landfill. A thorough analysis of the models used in the volume calculations was performed to assure the accuracy of the volume remaining at the facility". This discrepancy has resulted in the volume remaining for the facility in 2003 to be almost identical to the volume remaining in 2004. The estimates for the remaining site life of the facility increased from 2.2 years to 2.3 years despite the fact that the estimated 538,000 cubic yards of material was placed in the facility. Provide a detailed explanation of the deficiencies including figures detailing the survey data and final configurations utilized in the calculations. Furthermore if it is determined that the 2003 AEIR is in error, a revised 2003 AEIR should be submitted.

#### Response #1

Included in the amended AEIR is a detailed explanation of the deficiencies, including figures detailing the survey data and final configuration utilized in the calculations. From this analysis the 2003 AEIR will be amended to reflect the correct remaining airspace for the facility.

#### **ADEQ Request #2:**

Section 3.1 of the report states that "... the existing contours associated with the Class 1 waste disposal are **generally** at or below the final contours shown on the permit drawings." Please review and provide a recent topographic survey and documentation of all areas that are above the permitted final contours or provide the following certification.

"The facility is in compliance with the approved fill progression and permit plans. All areas of the facility are at or below the permit final waste grades"

#### Response #2

The AEIR has been amended to provide clarification in regards to existing and permitted final contours. GEC also provided a recent topographic survey and documentation of all areas that are above permitted final contours.

#### ADEQ Request #3:

Section 3.2.3 states that "The leachate collection system for each cell of the Landfill is constructed and operating in accordance with the Permit # 151-S1-R4". This exact statement was included in the 2003 AEIR submitted in April of 2004. Based on recent discussions and correspondence is has become apparent that portions of the leachate system was not operating as of the date of this report, on the day of the inspections by the professional engineer who prepared the report and during much of the last few years. Please reevaluate the statements and certifications presented in this report for consistency with actual site conditions and operations.

#### Response #3

The statement concerning the leachate collection system has been reevaluated. The statements and certifications presented in the amended AEIR are consistent with actual site conditions and operations.

#### **ADEQ Request #4:**

The report indicates that Closure and Post Closure Cost Estimates has been included in Appendix E of the AEIR. Appendix seems to only include information on the Financial Assurance Mechanism for the facility. Please submit detailed updated Closure and Post Closure Cost Estimates for the facility.

#### Response #4

Included in the amended AEIR is the updated financial assurance for the facility. BFI has posted security bonds with the ADEQ in the amount of \$4,077,317. This amount is adequate to cover the estimated closure and post closure cost for the facility.

#### PROFESSIONAL ENGINEER'S CERTIFICATION

As required by *Arkansas Regulation 22* (*Section 22.423*), representatives from Genesis Environmental Consulting, Inc. (GEC) inspected the BFI Model Fill Landfill (Facility) on several occasions during the reporting period (January 1, 2004 to December 31, 2004). During these inspections, general Facility operating practices and procedures in relation to *Arkansas Regulation 22* and the Facility's permit were reviewed. Based on site visits, review of the facility operating records, and discussions with the landfill owner/operator, it is my professional opinion that the Facility is being operated and maintained in compliance with *Arkansas Regulation 22* and the Facility's solid waste permit. This opinion and determination is contingent on the fact that all information supplied to the signatory authority as of the date of this certification is unquestionably accurate and provided in good faith.

Phillip Fields, P.E., P.G.

Arkansas Professional Engineer (# 11826)

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### 1.0 INTRODUCTION

BFI Waste Systems of Arkansas, LLC (BFI) owns and operates a solid waste disposal facility (Facility) in Pulaski County, Arkansas in accordance with *Permit # 151-S1-R4*.

Arkansas Regulation 22 (effective date April 1995) requires permitted Class 1 Landfills to submit annual Engineering Inspection Reports to comply with Section 22.423. More specifically, the regulations require the following:

Report Requirements - A registered professional engineer shall inspect the landfill site at least annually and prepare an annual report addressing operational compliance with permit conditions, permit plans, specifications and the narrative. The engineering inspection report shall be submitted annually to the Department and shall contain at a minimum:

- 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, specifications and narrative;
- Compliance with the operating requirements of this regulation and permit conditions;
- Changes or proposed changes to the operating plan;
- Quantity and characteristics of leachate collected and disposed of;
- Maintenance of stormwater controls:
- Status of capping and closure of completed areas;
- Status of remedial or corrective actions taken, and
- Any other items impacting permit compliance at the landfill.

The following document has been prepared to document compliance with the Facility Permit and *Arkansas Regulation 22*. Genesis Environmental Consulting, Inc. (GEC) has been contracted by BFI to provide engineering and consulting services associated with the development and operation of the Landfill.

### 2.0 FILL PROGRESSION AND LANDFILL UTILIZATION

The BFI Model Fill Landfill site consists of approximately 143 acres with approximately 116 acres of permitted landfill area. During the fall of 2004, BFI constructed the Phase III, Sector 1 cell consisting of approximately 11 acres. The cell was approved for waste disposal on January 28, 2005. Disposal of waste in the new cell began on January 31, 2005.

#### 2.1 WASTE RECEIVED DURING THE REPORTING PERIOD

BFI maintains records of the tonnage of waste received at the Landfill. Information derived from these records is reported to the ADEQ on a quarterly basis for the purpose of establishing fee payments to the Department as required by the regulations. According to the BFI records, approximately 298,461 tons of waste were disposed at the Landfill during the reporting period. **TABLE 1** details the monthly waste receipt tonnage and the equivalent cubic yards based upon the calculated in place density.

TABLE 1
MONTHLY WASTE RECEIVED

Month	Tonnage	Cubic Yards
January	24,448	39,948
February	22,847	37,332
March	28,995	47,377
April	27,098	44,278
May	24,232	39,595
June	28,109	45,930
July	26,667	43,574
August	26,366	43,082
September	23,392	37,895
October	23,392	38,222
November	21,863	35,724
December	21,252	34,725
Total	298,461	487,681

According to recent topographic surveys conducted by Bullseye Design Services, Inc. (January 20, 2004 and August 3, 2004), the approximate void space consumed between surveys during this period is 280,612 cubic yards. This represents an average landfill utilization rate of 44,840 cubic yards per month. Based upon the gate receipts received and void space consumed this represents an in-place density of 1,224 lbs/cy.

#### 2.2 REMAINING CAPACITY ESTIMATES

The total permitted capacity of the Model Fill Landfill is approximately 7,324,900 cubic yards. As of the end of the previous reporting period, (December 2003), there was approximately 1,811,761 cubic yards of void space remaining. As of the end of the present reporting period (December 2004), approximately 1,334,670 cubic yards of permitted capacity was remaining. This is based on an average utilization rate of 44,840 cubic yards per month.

It should be noted that during the process of preparing the Minor Modification submitted to ADEQ on November 3, 2004, discrepancies were found in the volume calculations for the remaining capacity of the facility. A thorough analysis of the models utilized in the volume calculations was performed to assure the accuracy of the volume remaining at the facility. The 1,334,670 cubic yards represent an accurate estimate of the remaining capacity.

#### 2.3 REMAINING SITE LIFE

Based on the present utilization rate (44,840 cubic yards per month), the estimated remaining permitted capacity of the site is 2.5 years. BFI is currently is in the process of preparing a major modification of the facility that will expand the facility vertically, and horizontally to the south.

### 3.0 LANDFILL OPERATIONS

The following information addresses the operation of the BFI Model Fill Landfill in relation to applicable Permit conditions and *Arkansas Regulation 22* requirements. When applicable, compliance monitoring corresponds to the reporting period from January 1, 2004 to December 31, 2004.

#### 3.1 COMPLIANCE OF FILL PROGRESSION WITH PERMIT

Based on visits to the site during the reporting period as well as a review of available survey information, the landfill is generally being developed and constructed in accordance with *Arkansas Regulation 22* and the site specific Permit Conditions Numbers 1-12 of the Permit. **APPENDIX A** contains a copy of *Permit # 151-S1-R4*.

On November 3, 2004, a minor permit modification was submitted to ADEQ and is still pending approval. The purpose of this modification was to improve the site design to facilitate the proposed Major Modification of the facility and allow additional time for the construction of the Phase III Sector 1 Cell. Due to a historically wet winter, the Cell construction was delayed and BFI continued to fill in the Phase II Sector I in anticipation of the minor permit modification approval. It should be noted, that the BFI has not exceeded its permitted capacity at the Model Fill Landfill. In addition, BFI will continue to pursue the Minor Modification of the facility so that the facility's present grades will be within the permitted final grades proposed in the Minor Modification. A copy of the Minor Modification Application is presented in **APPENDIX F**.

#### 3.2 COMPLIANCE WITH REGULATION 22 AND PERMIT CONDITIONS

The facility is inspected on a regular basis by the ADEQ for compliance with the regulations and the operating permit (See **APPENDIX B**). No deficiencies were noted on the reports corresponding to the inspection dates. Based on reports prepared by the Regional ADEQ Inspector, the Facility scored in the "Satisfactory" category during all inspections conducted during the reporting period.

### 3.2.1 Daily and Intermediate Cover

BFI is required to cover the active working face of the Landfill with 6 inches of earthen material or approved alternate cover material on a daily basis. Based on visits to the site during the reporting period, it appears that the application of daily and intermediate cover is in compliance with the permit requirements and *Arkansas Regulation 22*.

## 3.2.2 Changes in Operation Plan

During this period there were not any changes made to the operating plan.

#### PERMIT



# FOR THE CONSTRUCTION AND OPERATION OF A SOLID WASTE DISPOSAL FACILITY

#### **ISSUED BY**





### Class 1 Landfill

Permit Number

0151-S1-R4

**AFIN** 

60-00565

**Effective Date** 

June 2, 2003

**Expiration Date** 

June 2, 2013

Permit Owner & Address

BFI Waste Systems of Arkansas, LLC

3817 Mablevale Pike, AR 72204

Facility Site Name & Address

BFI

3817 Mablevale Pike

Little Rock, Pulaski County, AR 72204

Location

NE1/4, NW1/4 S20 T1N R12W

Permitted Landfill Area

Property Area

116.4 <u>+</u> Acreage

143 + Acreage

Financial Assurance1

\$3,989,973.00

Latitude/Longitude

34° 42' 44.78253" / 92° 19' 54.58432"

Design Engineer/Consultant

Genesis Environmental Consulting, Inc.

11400 West Baseline, Little Rock, AR 72209

This permit authorizes the operation of the solid waste disposal facility as set forth in the modification application dated April 18, 2003 BFI Waste Systems of Arkansas, LLC, hereinafter called "owner or "permittee," and received by the Department of Environmental Quality on April 28, 2003. This permit is issued pursuant to the provisions of the Arkansas Solid Waste Management Act (Arkansas Code Annotated 8-6-201 et seq.) as amended, hereinafter called the "Act; Regulation Number 22, Arkansas Solid Waste Management Code, as adopted by the Pollution Control and Ecology Commission, hereinafter called Regulation 22; and all other applicable rules and regulations of the Department of Environmental Quality, hereinafter called "Department", and the following terms and conditions:

BFI Waste Systems of Arkensas, LLC Permit No. 0151-S1-R4 AFIN: 60-00565 Effective Date: June 2, 2003 Page 2 of 12

#### **DESCRIPTION OF THIS PERMIT ACTION**

This minor modification addresses improvements to the landfill bottom liner system, leachate collection system and changes for the Landfill Operation Plan for the BFI Class 1 facility. The modification also addresses the name change from Browning Ferris Industries, Inc. to BFI Waste Systems of Arkansas, LLC, submitted on December 13, 2001 (ADEQ Document Identifier 15718). On the effective date, this permit supersedes all prior solid waste permits issued by the Department for this Class 1 Permit.

#### SITE SPECIFIC CONDITIONS

This permit is for an approximately 116.4 ±acre waste disposal site as indicated on the approved plans. The final grades and elevations shall not be exceeded at any time or in the anticipation of settlement and consolidation of the waste mass. This permit shall expire upon the expiration date shown above or when the authorized fill elevations have been attained and the facility is closed out in accordance with the provisions of Regulation 22, whichever occurs first.

- a. The Department shall be notified in writing upon construction of each disposal unit and upon facility closure in order that it may be inspected.
- b. Changes to or deviations from the construction/layout and operation of the facility, as indicated on the approved facility plans indicated below, and on the approved permit application documentation, are not authorized unless approved in writing by the Department.
- c. The approved application document is filed under the ADEQ Document Identification Number 19820. The approved modification plans are detailed in the Minor Permit Modification Application ADEQ Document Identifier 19820. The original facility plans is filed under ADEQ Document Identifier 2070.
- 2. The initial total amount of financial assurance is \$3,989,973.00. This amount shall be subject to annual adjustments and may be increased at the discretion of the Department based upon the estimated cost for a third party to close the largest area requiring final cover during the active life of the facility and the cost for a third party to perform post closure care.
  - a. The instruments used must be in one of the forms set forth in Regulation 22 or as otherwise approved by the Department.
  - b. Operations allowed under this permit shall not commence until all financial assurance is satisfactorily filed with the Department.
  - c. A portion or all of the financial assurance may be held by the Department beyond the time of cessation of disposal operations at the site to ensure satisfactory closure and post closure care in accordance with Regulation 22.

This permit is for the disposal of all waste eligible for a Class 1 sanitary landfill and all Class 4 waste including all "special materials" as outlined in Regulation 22.701-708. Special Materials as identified in Regulation 22 do not require written authorization from the Department, provided the materials not specifically identified by the Special Materials section must be characterized by the generator of the waste prior to acceptance for disposal in the landfill in accordance with the facility written hazardous waste exclusion program.

3. Each landfill waste cell shall be constructed in the sequence indicated in the approved plans and specifications.

EtTechnicalBriFacilities/80-00565 BFNClass tWierpe\_Class\_1\_Permit\_Final\_letter\_2003.doc

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The bottom liner system for any newly constructed waste cell must consist of a minimum 60 mil HPDE flexible membrane liner and a minimum of twenty-four inches of compacted day exhibiting a maximum hydraulic conductivity of 1 x 10<sup>-7</sup> centimeters per second (cm/s). Should the permittee desire to use any liner system other than a "composite liner" system as defined in Section 22.424 (b) of Regulation 22, an Alternative Liner Demonstration in accordance with Department written guidance on alternative liner design and demonstration shall be submitted to and approved by the Department prior to initiation of construction of the alternative liner system. The Department reserves the right to require the installation of additional groundwater monitoring wells and make other changes to the permit in the event a request to use an alternative liner design is approved.

- a. Proper construction of the bottom clay liner of each waste cell shall be observed and certified to the Department by a Registered Professional Engineer in a Construction Certification Report in accordance with the approved CQA Plan whenever a cell is prepared for use.
- b. The Construction Certification Report shall include CQA/QC test results as indicated in the approved CQA Plan; drawings indicating the location, designation, and extent of area(s) actually constructed for use; and test locations.
- c. The Certification Report shall be submitted to the Department at least fourteen (14) days prior to waste placement in that cell.
- 4. For final cover system, an engineering certification report required by Sections 22.428 and 22.1301 of Regulation 22 shall be submitted within thirty (30) days of completion of the final cover system.
- 5. Leachate collection removal and leachate storage systems shall be monitored and operated such that free flowing conditions are maintained in the teachate collection system. The leachate collection/removal and monitoring systems for Phase 1 shall be operated in accordance with the Permit Conditions. Should the leachate collection/removal system proposed by the permittee not result in dewatering of the waste mass and maintenance of a consistent low level head on the landfill bottom, the Department reserves the right to require additional leachate collection/removal facilities. The liquid level at Phase 1 shall be monitored by means of a series of at least nine (9) piezometers located in the vertical expansion. All teachate piezometers shall be properly protected from flooding. Inasmuch as existing hydrologic data indicates the maximum level of leachate is east of center in the existing fill area, at least five leachate plezometers shall be dispersed within an area bounded as follows based on the site horizontal coordinate system:

North Boundary: Northing 137600.00 East Boundary: Easting 1216800.00 South Boundary: Northing 136900.00 West Boundary: Easting 1215600.00

Each leachate piezometer shall be prominently and clearly labeled in the field with the unique identification number as indicated on the as-constructed drawings. Leechate plezometers shall be extended vertically upward or replaced, if necessary, so as to maintain a minimum of nine (9) fully operational plezometers in the waste mass continuously throughout the active life of the facility as well as during the 30 year postclosure care period. Prior to any extension, modification, replacement, or abandonment of a leachate plezometer, the permittee shall obtain Department approval and once approved submit revised asconstructed drawings and certification as noted hereinbefore. Hydrostatic head in piezonieters shall be monitored and recorded at least once per week. Measurement of static liquid level in leachate plezometers shall only be accomplished by trained personnel familiar with proper measuring techniques. During the post-closure care period, the Department may reduce the required monitoring frequency, provided historical records indicate leachate levels are low and relatively stable. Leachate Reporting for Phase 1- Results of leachate monitoring at Phase 1 shall be summarized quarterly in a report prepared by a registered professional engineer. Quarterly reports shall be submitted to the Department by the last day of the month following the end of the quarter. Quarterly reports for Phase 1 shall include the total volume of leachate removed each month and a potentiometric contour map of the leachate hydrostatic head, based upon measurements made during the last month of the quarter. The date(s) hydrostatic leachate levels were actually measured shall be indicated on the potentiometric map. During the post-closure care period for Phase 1, the Department may reduce the required leachate monitoring and reporting requirements, provided historical records indicate leachate levels are low and relatively stable. Leachate

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> shall be removed from leachate collection systems at the horizontal expansion (Phases 2 and 3) at intervals sufficient to avoid ponding upon the bottom liner of the landfill; except for brief intervals, the maximum allowable head upon any portion of the bottom liner is 12 inches (30 cm). The permittee shall maintain appropriate records to document compliance with maximum allowable head requirements. The permittee shall install standard flow measuring/recording device(s) to accurately measure the total volume of leachate removed each day from Phase 1, from Phase 2, and from Phase 3. The total removed each day from each phase shall be monitored and recorded and the leachate volume removed each calendar month from each phase shall be totaled and recorded. Plans and specifications of the flow measuring/recording device(s) shall be retained in the facility operating record for review by authorized representatives of the Department, Leachate removed from leachate collection systems may be stored in leachate storage tanks on-site and discharged to the Little Rock Sanitary Sewer System in accordance with requirements of the Little Rock Wastewater Utility. Any alternate means of leachate disposal will require written authorization from the Department. The volume of leachate discharged to the Little Rock Sanitary Sewer System shall be monitored and recorded daily. The total leachate volume discharged each calendar month shall be determined and recorded. Results of any other monitoring, testing, or record keeping required by the Little Rock Wastewater Utility shall be retained on-site in the operating record for review by authorized representatives of the Department.

The post closure maintenance period for this facility shall be a minimum of 30 (thirty) years starting on the date the Department accept closure of the facility. The length of the post closure period may be decreased or increased by the Director in accordance with Regulation 22.1302(c) (4).

Seeding with suitable perennial grasses and soil stabilization shall be conducted in the spring and fall on all exposed surfaces not currently receiving wastes. Furthermore, re-vegetation shall be accomplished after final elevations are attained and the landfill is capped in accordance with the approved closure plan and Section 22.1301 of Regulation 22. Following establishment of cover vegetation, the vegetation shall be properly mowed as needed during the growing season to control undesirable annual weed and woody vegetation growth and to facilitate proper inspection of the cover.

The permittee must cover disposed waste with at least six inches of soil at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging. No portion of the waste is to be left exposed at the end of the operating day. Alternative materials for daily cover, such as synthetic materials, shall only be used when specifically authorized in writing by the Department. Any alternative daily cover that is proposed by the permittee must comply with Department guidelines and include specific written operating procedures that will be implemented to control disease vectors, fires, odors, blowing litter, and scavenging. The use of synthetic material will not be authorized unless it is incorporated within operating procedures that also rely on use of at least six inches of soil cover for daily cover on some days; any proposal for daily cover based solely upon fulf-time use of synthetic material will not be approved. For disposal of solid waste below the elevation of the 100-year flood, the permittee shall monitor the level of Fourche Creek at the emergency spillway daily during high water or flood events; should the level of Fourche Creek rise to within 2 feet of the spillway crest, the permittee shall provide additional daily soll cover [total of 12"or greater] over disposed waste until such time as Fourche Creek recedes more than 1 foot below the spillway crest. In the event the level of Fourche Creek rises above the spillway crest, the permittee shall insure that all waste disposed below the 100-year. flood elevation is covered with at least 12 inches of soli and suspend all waste disposal activities below the 100year flood elevation until such time as the creek recedes to at least 1 foot below the spillway and flood waters are pumped out of the landfill site in accordance with approved floodplain mitigation procedures.

Fill operations at the site shall be conducted in a manner that will not restrict the flow of the base (100 year return probability) flood, reduce the temporary water storage capacity of the floodplain, or result in washout of solid waste so as to pose a hazard to human health and the environment. Prior to the commencement of construction of each landfill phase as identified on the approved plans, the permittee shall obtain all grading/fill permits that may be required under the City of Little Rock FEMA floodplain management program and forward copies of all grading/fill permits and related documentation to the Department. Construction on each phase shall not commence until written authorization is provided by the Department. Construction of each phase shall be in accordance with any requirements or conditions of the grading/fill permits and any alterations, revisions, or additions to engineering plans, operation narrative, and/or specifications necessary to satisfy floodplain management requirements of the City of Little Rock and/or the Corps of Engineers shall be submitted to the Department for review and approval.

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Alterations, revisions, or additions to the September, 1995 modification application documents will not be considered authorized until accepted by the Department. The permittee at all times shall follow approved operating procedures, and take additional steps if necessary, to prevent the washout of solid waste from flood events. This shall include placement of additional daily soil cover over waste disposed below the 100-year flood elevation during high water or flood events at the site. The permittee shall take appropriate measures to protect facilities from damage and/or contamination due to flood waters. These measures shall include:

Leachate Collection Manholes, Sumps and Cleanouts: The tops of these components shall be extended at least 1 foot above the 100-year flood, or alternately they shall be constructed with water tight covers such that flood water cannot enter them.

Leachate Storage Tanks: The tops of tanks shall be extended at least 1 foot above the elevation of the 100-year flood, or alternately a water tight lid(s) shall be provided such that flood water cannot enter the tank. For each installed tank, calculations shall be performed by a registered professional engineer to insure that the tank is properly designed to withstand flotation effects from the 100-year flood.

Groundwater Monitoring Wells and Leachate Piezometers: The tops of monitoring wells or piezometers shall be extended at least 1 foot above the elevation of the 100-year flood, or alternately the top of the well or piezometer shall be protected by a water tight screw on cap such that flood water cannot enter it.

Emergency Spillway: The crest and side slopes of the spillway shall be lined with reinforced concrete, riprap, or other erosion resistant material approved by ADEQ.

12. A Liquid Waste Management plan (ADEQ Document Identifier No. 19364) was received by the Department on April 4, 2003. This plan was approved by letter on April 10, 2003 (ADEQ Document Identifier 19395)

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## **Ground Water Monitoring Conditions**

- A ground water monitoring system shall be established and maintained at the BFI Class 1 Landfill (BFIC1) that consists of a sufficient number of wells or sampling points, installed at appropriate locations and depths that will yield representative samples of ground water quality. The ground water monitoring system for this facility must at all times be properly maintained, be sampled in accordance with the terms and conditions stipulated in this permit and/or comply with the monitoring requirements found in Chapter 12 of Regulation 22. Once established at this landfill, the monitoring system shall be designed, installed, operated and maintained to perform to design specifications throughout the active life of the facility and into the post-closure care period.
  - a. The ground water monitoring system for the BFIC1 will consist of (11) eleven monitor wells. The wells are designated as follows: MW-1A, MW-2A, MW-3A, MW-4A, MW-5A, MW-14, MW-15, MW-16, MW-18, MW-19, and MW-20.
  - b. The current monitor well locations are shown on Drawing R-1B; Hydrogeologic Characterization, Model Fill Landfill; Revised November 1, 1996; (submitted November 21, 1996); by Atoka Inc., Engineering and Environmental Consultants; for Browning and Ferris Industries, Inc.
- 2. Any new monitor well(s) added to the ground water monitoring system shall be certified by a Registered Professional Geologist or a qualified ground water scientist as stipulated in Regulation 22.1202(e). Within fourteen (14) days of submitting this certification to ADEQ the permittee must notify the Director this monitoring system certification has been placed in the facilities operating record.
  - The ground water monitoring system certification shall confirm any new monitoring well(s) installed for this facility are capable of yielding water samples that are representative of the uppermost equifer water quality at the sampling point. Monitoring system certification shall also confirm all monitoring system components have been constructed and installed in an acceptable manner following appropriate ASTM D 5092 well construction protocols.
  - The permittee shall within fourteen (14) days of completing installation or making any changes to the facilities monitoring system notify the Director that the design, installation, development and decommissioning of any monitor wells, piezometers and other measurement, sampling and/or analytical devices, has been documented and placed in the operating record for this facility.
- 3. The permittee shall comply with Regulation 22.1103 (a), which requires following construction, each well shall be developed to the degree necessary to restore formation hydraulic conductivity and insure retrieval of samples that are representative of formation ground water quality, at this facility.
  - a. The Permittee shall utilize low-flow well purge and sampling techniques for monitor well sample collection. Prior to sampling, turbidity values shall be allowed to stabilize to a level, which is representative of ambient water quality in the formation. If during background or routine sampling, the turbidity values consistently remain above 10 NTU's, a qualified groundwater scientist shall evaluate the integrity of the well, redevelop the well if necessary and/or provide written justification the turbidity values present in the samples are representative of ambient water quality in the formation. If the justification provided by the Permittee for the observed turbidity values is not considered valid, and/or if the well cannot be effectively redeveloped to reduce turbidity values below 10 NTU's, and/or if the well is found to be unreliable for generating representative water quality samples, it must be replaced prior to the next scheduled sampling event.
  - b. Reports of replaced or decommissioned wells shall be submitted to the Department within 60 days of completion and shall be placed in the Operating Record.

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- 4. The permittee shall obtain ground water samples which are representative of water quality passing the relative point of compliance specified in Regulation 22.424(d) for this facility. The down gradient monitoring wells for this facility must be installed at this relative point of compliance.
  - a. Each monitoring well shall be sampled in accordance with the approved <u>Sampling and Analysis</u> Plan (SAP).
  - b. Any newly installed monitor well or replacement well(s) shall be sampled quarterly for a period of (1) one year to establish back ground and/or up gradient water quality conditions in accordance with Regulation 22.1203(e). Thereafter, any new and/or existing monitor well in the ground water monitoring system shall be sampled semi-annually.
- 5. The permittee must establish or have previously established background water quality parameter concentrations in hydraulically up-gradient or background well(a) which have not been affected by leakage from a landfill unit at this facility, in accordance with Regulation 22.1203(e). If necessary, a minimum of four independent samples from each up-gradient or background well must be collected and enalyzed.
  - a. Up-gradient and down-gradient water quality samples from this facility shall be analyzed for Regulation 22, Appendix 1 parameters.
  - b. The Director may approve an alternate list of Appendix 1 parameters in accordance with Section Regulation 22.1204(a)(2) for establishing background water quality at this location.
- 6. Each monitoring well shall be sampled by qualified personnel properly trained and familiar with appropriate procedures and techniques for the collection of ground water samples.
  - a. The permittee may utilize low-flow well purge and sampling techniques for monitor well sample collection. Prior to purging the monitor wells, static water level measurements shall be taken, recorded and the data used to establish ground water flow direction in the upper most aquifer. Measurements are to be taken from the surveyed benchmark on the top rim of the well casing.
  - b. Ground water sampling and analysis shall comply with the requirements of Subpart E of 40 CFR Part 258 as adopted in Regulation 22.
  - c. Sample analysis shall be performed by a laboratory that is properly certified by ADEQ to run the type of analysis required by Regulation 22.
- 7. Analysis of ground water samples shall be in accordance with EPA Report SW-846 Test Methods for Evaluating Solid Waste Physical/Chemical Methods, Vols. IA, IB, IC and II, Third Edition, Rev.1, December 1987 or equivalent as specified in 40 CFR Part 136.
  - a. Analysis for metals shall utilize either Method 6010, a method from the 7000 series or an equivalent. Method detection limits for each parameter must be reported.
  - b. Parameter concentrations that are above the Method Detection Limit (MDL) but below the Practical Quantization Limit (PQL) must be reported. Non-detects reported below the PQL will utilize ½ the PQL for statistical evaluation.
  - c. The Department may modify the analytical parameters, sampling frequency or the sampling methods required under this permit based on any information received by ADEQ, based on the analytical results received for this facility and/or based new laboratory techniques which may result in more accurate water quality analysis from samples taken at this facility.

BFi Waste Systems of Arkansas, LLC Permit No. 0151-S1-R4 AFIN: 60-00565 Effective Date: June 2, 2003 Page 8 of 12

- 8. The permittee must select a statistical method approved by the Department for evaluating water quality monitoring results for each constituent to determine whether a statistically significant increase (or decrease in the case of pH) occurs for each ground water monitoring constituent in conformance with the requirements of Regulation 22.1203 (g) (h) and (i).
- 9. Ground water monitoring reports shall be submitted to the SWMD in accordance with the dates listed in paragraph 9(a) or 9(b) below, as appropriate. The report shall summarize the results of sampling and include a determination of whether a statistically significant increase over background values has occurred for each constituent required to be analyzed.
  - a. Quarterly analytical results shall be submitted directly to the Solid Waste Management Division (SWMD) from the contract laboratory on or before March 31, June 30, September 30, and December 31.
  - b. Semi-annual analytical results shall be submitted directly to the SWMD on or before June 30 and December 31 each year thereafter.
- 10. The permittee shall initiate Detection Monitoring at this facility, for all existing ground water monitoring wells. Semi-annual Detection Monitoring for Appendix 1 parameters shall be required for all existing ground water monitoring wells located at this facility, as defined in Regulation 22.1204.
  - a. The Director, in accordance with Regulation 22.1204(a)(1) may delete any Appendix 1 sampling parameter from this detection monitoring program if it can be demonstrated those constituents cannot reasonably be expected to be found in or derived from the wastes disposed in this landfill.
- 11. The permittee, after initiating a Detection Monitoring Program at this facility, should a statistically significant increase over established background concentrations be detected for one or more of the monitored constituents, the permittee must undertake the following actions:
  - Must, within 14 days of this finding, place a notice in the facility Operating Record indicating which
    constituents have shown statistically significant increases (SSI) from background levels, and
    notify the Director this notice was placed in the operating record; and,
  - b. Establish an Assessment Monitoring Program meeting the requirements of Regulation 22.1205 within 90 days except as provided for in Regulation 22.1204(c)(3); or
  - c. The permittee must establish an alternate source other than the landfill has caused the contamination or the SSI was the result of a sampling error, laboratory error, statistical error or a natural variation in ground water quality at that location; A report documenting this demonstration must be certified by a qualified ground water scientist or be approved by the director and be placed in the facilities operating record.
  - d. If, after 90 days, the permittee has not provided the Director a successful alternate source demonstration for this facility, as provided for in Regulation 221204(c)(3), the permittee must initiate an Assessment Monitoring Program.
- 12. While a facility is in an Assessment Monitoring Program, if one or more of the Appendix 1 constituents are detected at a statistically significant level exceeding the established Ground Water Protection Standards (GWPS) defined under Regulation 22.1205 (h) or (i), the permittee must initiate an Assessment of Corrective Measures for the facility, in accordance with Regulation 22.1206. Based upon the results of an Assessment of Corrective Measures, the permittee must proceed with Selection of a Remedy in accordance with Regulation 22.1207 and then proceed with Implementation of a Corrective Action Program for the facility in accordance with Regulation 22.1208.

BFI Waste Systems of Arkensas, LLC Permit No. 0151-S1-R4 AFIN: 60-00565 Effective Date: June 2, 2003 Page 9 of 12

#### **GENERAL CONDITIONS FOR CLASS 1 FACILITIES**

This permit is issued in reliance upon the statements and representations made in the application, operating narrative, plans, specifications, correspondence, and other related documents. The Department bears no responsibility for the adequacy or proper functioning of the disposal facility. Nothing contained herein shall be construed as releasing the permittee from any liability from damage to persons or properly due to the installation, maintenance, or operation of the disposal facility or any act of the permittee, or the Permittee's employees or agents.

The disposal facility shall be constructed, operated and maintained in accordance with the final plans, specifications and operation narrative as approved by the Department and in compliance with applicable provisions of the Act, Regulation 22, and all other applicable rules and regulations.

At all times the disposal facility shall be maintained in good condition and operations shall be conducted by licensed, qualified on-site operators holding the appropriate license in accordance with Regulation Number 27, Licensing of Solid Waste Management Facilities and Illegal Dump Control Officers.

This permit may be revoked or modified whenever, in the opinion of the Department, the facility is no longer in compliance with the Act, Regulation 22, or other applicable rules and regulations. Except where expressly authorized by the Department, this permit shall not relieve the permittee, or the Permittee's employees or agents, from compliance with the provisions of the Act and Regulation 22.

The Department may issue modifications or amendments to this permit governing the design, operation, maintenance, closure or post-closure of the facility during the term of this permit. Such modifications or amendments shall be attached to this permit and shall be fully maintained and enforceable as a condition or conditions of this permit.

The Department has received an initial permit fee from the permittee. Annual permit fees due thereafter shall be assessed in accordance with Regulation Number 9, Regulation for the Fee System for Environmental Permits as revised by Emergency Order effective November 1, 2002. The facility shall also be responsible for quarterly payments of other landfill disposal fees as required under Regulation 11, Regulations for Solid Waste Disposal Fees; Landfill Post-Closure Trust Fees; Illegal Dumps Program; and Recycling Grants Program as revised, effective January 18, 2001. Failure to pay annual fees or quarterly payments when due may result in revocation of this permit.

The permittee shall maintain an Operating Record at the location indicated in the permit application, or at an alternate location approved in writing by the Department.

At a minimum, the following documents and materials shall be retained in the facility operating record for review by authorized representatives of the Department:

The approved facility operating plan, approved permit plans and specifications, CQA reports, site inspection reports, operator licenses, this disposal permit and written authorizations issued by the Department that provide modifications to the facility or its operations, all environmental monitoring or test results, and other pertinent records, certifications and correspondence as required by Regulation 22 or other permit conditions herein; and

All construction test results, certifications, acceptances, construction reports, photographs, layout drawings, record (as-constructed) drawings, shop drawings, construction drawings, and other documentation required by the specifications, and CQA/QC plans, reports and documents; and

Other documents that pertain to the operation and maintenance closure and/or post-closure of the facility, or as directed by the ADEQ.

The permittee shall forward a copy of information from the Operating Record when requested by the Department. Extrachrical@4Facilities/Society Department. Extrachrical@4Facilities/Society Department.

BFI Waste Systems of Arkansas, LLC Permit No. 0151-S1-R4 AFIN: 60-00565 Effective Date: June 2, 2003 Page 10 of 12

Transactions that affect the ownership of the facility must be fully disclosed to the Department.

For purposes of evaluating whether a change in ownership occurs, ownership or control may result from a change in the equity of the permittee of five percent (5%) or more.

If applicable, the permittee shall submit to the Department annual and quarterly reports required by the Securities and Exchange Commission (SEC) that provide information regarding legal proceedings in which the permittee has been involved in order to determine whether any change in ownership or control of the operation of this landfill has occurred.

A permit transfer will not be required when a change in ownership or control of the facility is among the persons and/or entities previously disclosed to the Department in Section E of the Disclosure Statement or similar disclosure.

The permittee shall furnish the Department annual engineering inspection reports in accordance with Regulation 22.423. The annual report for Class 1 facilities is due on March 31 of each year and shall cover the preceding period beginning January 1 and ending December 31. In addition to the information required in Section 22.423 of Regulation 22, the annual engineering report shall include the total volume of leachate removed each calendar month from Phase 1, from Phase 2, and from Phase 3. A potentiometric contour map of the leachate level in the vertical expansion (Phase 1), based upon measurements during the last month of the 12-month reporting period, shall be included in the engineering report. The date(s) hydrostatic leachate levels were actually measured shall be indicated on the potentiometric map.

A survey control system shall be established and maintained at the landfill site that complies with Regulations 22.426.

The landfill working face shall be confined to the smallest practicable area.

The permittee shall not engage in or allow salvage operations at the facility except with written authorization from the Department or as may be provided in the section titled Site Specific Conditions of this permit. The Department may review and approve requests for future salvage of disposed materials for recycling purposes on a case-by-case basis.

Disposal of bulk liquid waste in the landfill is prohibited. Liquid waste is waste that contains "free liquids" as defined by Method 9095 (Paint Filter Liquids Test) in EPA Publication No. SW-846.

Measures to control and prevent storm water run-on from running through or into the active disposal area shall be constructed and maintained. Grading, dikes, diversion ditches, silt fencing, silt, traps, and other best management practices (BMP) for storm water control shall be provided as necessary to control/prevent off-site sediment accumulation from landfill related operations.

Appropriate NPDES construction/storm water permit(s) shall be obtained for storm water discharges from the landfill site and borrow sites. A Storm Water Poliution Prevention Plan (SWPPP), which outlines erosion and sediment control measures, shall be prepared and implemented in accordance with applicable NPDES requirements. A copy of the SWPPP shall be maintained on-site for reference by operating staff.

The permittee shall comply with the air criteria requirements of Regulation 22.416. Those requirements include meeting the State Implementation Plan (SIP) pursuant to Section 110 of the Clean Air Act; prohibiting open burning of solid waste, unless authorized by the Department; and establishing fire safety procedures.

Litter control fences shall be provided in the active fill area for the control of blowing litter. Other litter control measures shall be implemented, if necessary, to confine litter to the smallest practicable extent and prevent litter from leaving the site.

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BFI Waste Systems of Arkansas, LLC Permit No. 0151-S1-R4 AFIN: 60-00565 Effective Date: June 2, 2003 Page 11 of 12

The permittee shall implement a hazardous waste screening and detection program at the facility in accordance with the approved operating plan and Regulation 22.412. The program shall include procedures for evaluation of any questionable wastes prior to disposal to determine whether the waste complies with the Regulation 22 requirements for disposal in the facility.

The permittee must cover disposed waste with at least six inches of soil at the end of each operating day, or at more frequent intervals if necessary, to control disease vectors, fires, odors, blowing litter, and scavenging. No portion of the waste is to be left exposed at the end of the operating day. Alternative materials for daily cover, such as synthetic materials, shall only be used when specifically authorized in writing by the Department. Any alternative daily cover that is proposed by the permittee must comply with Department guidelines and include specific written operating procedures that will be implemented to control disease vectors, fires, odors, blowing litter, and scavenging. The use of synthetic material will not be authorized unless it is incorporated within operating procedures that also rely on use of at least six inches of soil cover for daily cover on some days; any proposal for daily cover based solely upon full-time use of synthetic material will not be approved.

The final grades and elevations shown on the plans shall not be exceeded at any time or in anticipation of settlement and consolidation of the waste mass.

Timely initiation and completion of closure of landfill cells or units shall be made in accordance with Regulation 22.1301(f) and (g).

Proper construction of the final cover system shall be observed and certified in writing to the Department by a Registered Professional Engineer in a Construction Certification Report in accordance with the approved CQA Plan whenever a cell, area or phase of the landfill is closed-out.

The Certification Report shall include CQA/QC test results as indicated in the approved CQA Plan; drawings indicating the location, designation and extent of closed area(s); and test locations.

Any statements in the operational narrative, specifications, and/or engineering plans that conflict with Regulation 22, permit conditions herein, or other applicable laws and regulations shall not be considered authorized by the Department. Activities associated with the bioreactor operations will be reviewed and permitted under the EPA Research, Development and Demonstration permit rules.

This permit authorizes one (1) active disposal area at the facility per Section 22.411 (c) of Regulation 22. Multiple working faces shall not be utilized at the facility unless the permittee can provide adequate justification for more than one working face and specific authorization for such is granted in writing by the Department. It is not anticipated that such authorization will be granted except on a temporary basis for highly unusual or emergency situations.

The Department, its employees, agents, or any authorized person shall have the right to enter the property at any time for any reason as set out in Regulation 22 for the purposes of, including but not limited to taking samples, reviewing the operating record, inspecting the facility, and perform other enforcement or engineering action without interference or delay from the permittee.

The Department's decision to issue this permit is final for purposes of appeal as of the date indicated in the Certificate of Service below. If any provision of these conditions or the application of these conditions thereof to any person or circumstance is held invalid, such invalidity shall not affect other provisions or applications of these conditions that can be given effect without the invalid provision or application. Therefore, to this end, the provisions of these conditions are declared to be severable.

APPROVED BY:

Arkansas Department of Environmental Quality

8017 I-30, Post Office Box 8913 Little Rock, Arkansas 72219-8913

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BFI Waste Systems of Arkanass, LLC Permit No. 0151-S1-R4 AFIN: 60-00585 Effective Date: June 2, 2003 Page 12 of 12

For Marcus Devine, Director
06/02/2003
Date

CERTIFICATE OF SERVICE

I, Kusan Beck: hereby certify that a copy of this permit has been mailed by first-class mail to Mr. Jim Schemethorn, 3817 Mablevale Pike, Little Rock, AR 72204, on or before this 2 day of June, 2003.

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June 2, 2003

Mr. Jim Schermerhorn BFI Waste Systems of Arkansas, LLC 3817 Mablevale Pike Little Rock, AR 72204

Issuance of Final Permit to BFI Class 1 Landfill

AFIN: 60-00565

Permit Number: 0151-S1-R4

Dear Mr. Schermerhorn:

Enclosed is a permit authorizing the construction, operation, and maintenance of the Class 1 landfill facility as described in your application of April 18, 2003. The permit number for the facility is 0151-S1-R4 and the Arkansas Facility Identification Number (AFIN) is 80-00585. The decision to issue the permit is based upon the information contained in the permit application; and other materials submitted by the applicant.

The permit is granted subject to the terms and conditions specified in the permit. The initial amount of financial assurance required is \$3,989,973.00 for the facility. Acceptable mechanisms for financial assurance include a surety bond, collateral bond (supported by a letter of credit, securities or cash), or other mechanisms as set forth in Chapter Fourteen of Regulation Number 22. The instruments used must be in the exact form set forth in Regulation Number 22 and must be filed with the Department before the permit can become effective. The purpose of the financial assurance is to ensure an environmentally sound closure of the site upon conclusion of disposal operations and acceptable post closure care.

Please review all terms and conditions of the permit to ensure compliance with all applicable requirements. Annual reports for Class 1 landfill facilities per Section 22.423 of Regulation 22 for the period ending December 31 are due at the Department by March 31. Operations authorized under this permit may begin only after written notification from this Department is sent to the permittee that the following items have been submitted and approved by the Department: a) financial assurance, b) construction quality assurance test results, c) engineering certification of initial construction, and d) as-built drawings of initial construction. Please review all terms and conditions of the permit to ensure compliance with all applicable requirements.

Thank you for your cooperation on this matter. If you have any questions, or if we may be of service, please feel free to contact the Solid Waste Management Division.

Steve Martin, Chief

Solid Waste Management Division

Encl.

**Permit and Conditions** 

XC:

Genesis Environmental Consulting, Inc.

Ken Burks, Inspector, SWMD Heidi Love, Inspector Supervisor

Susan Speake, Programs Branch Manager, SWMD

Jim Purvis, Business Office

Chrissy Heider, Technical Assistant, SWMD / PDS



February 6, 2004

James E. Fleming
BFI Waste Systems of Arkansas, LLC
3817 Mabelvale Pike
Little Rock, Arkansas 72204

RE: Request for BFI Class 1 Landfill Minor Modification AFIN 60-00565 Permit No. 0151-S1-R4 Document Identifier No. 22377

Dear Mr. Fleming:

ADEQ Solid Waste Management Division (SWMD) Technical Branch staff has reviewed BFI's Class 1 Revised Permit Modification (Document Id No. 21997) submitted by Genesis Environmental Consultants, Inc. on your behalf. After review of the additional submitted information, it appears all deficiencies previously listed have been addressed. Therefore, the Department hereby provides authorization to modify Phase 3 Sector 1 of the facility by constructing the new cell below the ground surface as proposed in the minor modification.

This authorization is being given in reliance upon the statements and representations made to the Department, and the Department has no responsibility for ultimate proper functioning of the disposal facility. The Department also reserves the right to request additional information if it is deemed necessary. This approval shall not remove any liability nor hold BFI harmless in the event of any adverse environmental or public health conditions resulting from the additional working face at the facility. BFI shall be solely and fully responsible for implementing any corrective action necessary to remediate any adverse condition at the site based on this authorization.

Please call me at (501) 682-0597 should you have any questions regarding the above information.

Sincerely,

Seneca Jacobs Permit Engineer

c: Ken Burks, District Field Inspector, SWMD

Ken Bown, P.E., G.E.C. Inc., 11400 West Baseline Road, Little Rock, AR 72209

E:\Facilities\AFIN-51\_to\_75\60-00565\_BFI\MinorModificationPhase3Sector1.doc SOLID WASTE MANAGEMENT DIVISION 8001 NATIONAL DRIVE / POST OFFICE BOX 8913 / LITTLE ROCK, ARKANSAS 72219-8913 / TELEPHONE 501-882-0602 / FAX 501-682-0611 www.adeg.state.ar.us Errori Reference source not found. Errori Reference source not found. Page 2 of 2



# Addendum to Permit

## STATE OF ARKANSAS DEPARTMENT OF ENVIRONMENTAL QUALITY SOLID WASTE MANAGEMENT DIVISION



Browing Class 1 La	Ferris Industries	AFIN: Permit No:	60-00565 9151-51-R4
Date		Addendum to Permit	
Doc.# 22377	the type and thickness of the mate	construct below the existing ground surerial used for the protective cover layer not increase permitted elevations or ch	over the geocomposite lateral dramage
1. C	acceptance area	not increase permitted elevations of ch	lange the root print area of the waste

# APPENDIX B ADEQ Inspection Reports

2004 Annual Engineering Inspection Report BFI Model Fill Sanitary Landfill Permit # 151-S1-R4 March 2005



January 12, 2004

Mr. Jim Schermerhorn Browning-Ferris Inc. 3817 Mablevale Pike Little Rock, Ar 72204-5315

RE: AFIN Nbr: 60-00565 Permit Nbr. 0151-S1-R3

Dear Mr. Schermerhorn:

On January 12, 2004, I performed a routine inspection of your facility pursuant to the Arkansas Solid Waste Management Reg. 22, and the above referenced permit. A copy of the inspection report is enclosed for your review.

Refer to the report to note any allegations of deficiencies that require corrective action. Please send a written response to the corrective action taken. Failure to respond to this letter in writing shall be construed as an admission of any allegations contained therein. Any items noted that are neglected and persistent may warrant enforcement action.

If I can be any further assistance, feel free to contact me at (501) 682-0581 or at the address below.

Sincerely,

Kennoy Burks

Kenneth Burks, Inspector Solid Waste Division

cc: Central Files Enforcement Branch Files, SW



# Arkansas Department of Environmental Quality Solid Waste Management Division Class 1 Landfill Inspection



		(C)	ass 1 La	ndfill Insp	ection					
Site Name:	BFI Model Fill			County:	Pulas	ki	AFIN:		60-00565	
Location:	3817 Mabelval Little Rock, AF			Telephone Number:	501/5	62-0070	Permit N	lo.:	0151-S1-R3	
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	te provisions for backup					s or evidence		page 4	11(o)	
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3 FOR ADEQ USE ONLY

Copies requested b	ν.	



April 07, 2004

Mr. Johann Linker Browning-Ferris Inc. 3817 Mablevale Pike Little Rock, Ar 72204-5315

RE: AFIN Nbr: 60-00565 Permit Nbr. 0151-S1-R3

Dear Mr. Linker:

On April 05, 2004, I performed a routine inspection of your facility pursuant to the Arkansas Solid Waste Management Reg. 22, and the above referenced permit. A copy of the inspection report is enclosed for your review.

Refer to the report to note any allegations of deficiencies that require corrective action. Please send a written response to the corrective action taken. Failure to respond to this letter in writing shall be construed as an admission of any allegations contained therein. Any items noted that are neglected and persistent may warrant enforcement action.

If I can be any further assistance, feel free to contact me at (501) 682-0581 or at the address below.

Sincerely,

Kennoy Burks

Kenneth Burks, Inspector Solid Waste Division

cc: Central Files Enforcement Branch Files, SW



# /Atkansas Pepariment of Environmental Ouality Solid Waste Management Division প্রেরজন্ম ক্রিয়াটার কর্মাক্র



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Entry Ti	me:	1300	Date:	01/12/0	)4	INSP		REQUENCY		10	TAL SCORE:
Exit Tim	ne:	1445	Total Hours:	1.7				arterly inspection			O Company of the contract of t
			Rec	gulation	n 2	2 - Rec	ords		-04 (F)		Section 2
421(a)(8)	, 1204(b)	Date of last ground	lwater monitoring repo	rt	11/	/2003	423(b)	Date of last e	ngineering n	eport	03/31/04
421(a)(8)	, 428(h)	Date of last liner ce	ertification report		09/	/25/03					
412(a)		Date of last randon	n inspection for hazard	lous waste	04/	/02/04	Total # for	month	2		
415, 421(	(e)	Date of last quarter	rly methane monitoring			/16/04	Detection	level	0.0		
421(g), 4		Date of last specia	I waste received	<u></u>		/01/04	Disposal I	ocation		um Di	ust – W.F.
421(f)		Date of leachate di		<del></del>	+	nt.	Method	T	Location	LRV	
421(b)		Last months repor			+ = =	111.	Tons	20 100	Су	-7.	***
				<del></del>	<u> </u>			28,188	1.,		
						Signature of Inspector: Kunnoy Burks					

Class 1 Lf Form 1997/ Rev Jan. 2003 / Rev 8-19-03	FOR ADEQ USE ONLY	☐Copies requested by_
Data Entry Number		



July 07, 2004

Mr. Johann Linker Browning-Ferris Inc. 3817 Mablevale Pike Little Rock, Ar 72204-5315

RE: AFIN Nbr: 60-00565 Permit Nbr. 151-S1-R3

Dear Mr. Linker:

On July 02, 2004, I performed a routine inspection of your facility pursuant to the Arkansas Solid Waste Management Reg. 22, and the above referenced permit. A copy of the inspection report is enclosed for your review.

Refer to the report to note any allegations of deficiencies that require corrective action. Please send a written response to the corrective action taken. Failure to respond to this letter in writing shall be construed as an admission of any allegations contained therein. Any items noted that are neglected and persistent may warrant enforcement action.

If I can be any further assistance, feel free to contact me at (501) 682-0581 or at the address below.

Sincerely,

Kennor Bucks

Kenneth Burks, Inspector Solid Waste Division

cc: Central Files
Enforcement Branch Files, SW



# Arkansas Department of Environmental Quality



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			Co. St. of T. Co. S. (2) 2 (0) 2 (0) 2 (0) 1 (1) 2 (1)	以下,我们们就是一个人的。 网络大学	nemera Kealtiibu		OT:				
100				10 m							
Site N	ame:	BFI Model Fill			County:	Pulasi	ci	AFIN:	60-00565		
Locat	ition: 1		Telephone Number:	501/56	2-0070	Permit No.:	0151-S1-R3				
Addre Permi		Same as locati	<del></del>	:	E-Mail Address:	Johani win.co	n.linker@ m	Licensed Ope			
	Regulation 22 Ope				perationa	al Stan	dards				
Category 1  First Violation: Score of 1 Second Violation: Score of 2 Third Violation: Score of 3			Property of the sales	ategor	Aldon dos distribuida Algon de apparenta	First Violation : Sco Second Violation : Third Violation : Sc	Score of 6				
	Adequate e	mployee facilities 411(	1)		O	erations in	accordance wit	h permit document	s 411(a)		
	Record kee	ping meets requireme	nts specified by regulat	ions 421(a)(b)	Ga	s monitorin	g program 415				
	Feeding of	farm or domestic anim	als prohibited 411(f)(2)	San Comment for the State of th				plan and narrative	422(a)(b)		
		erations meet approve		an hardinah sakan dibanda (1981), dad mar			ste exclusion p				
			formation signs posted	417(b)				cover 413(a)(b)			
		fined to hours of oper					prohibited 416(	b), 411(f)(4)			
		of waste prohibited 4				use dischar		470	2 1965 day 1 - 2424 1 1966		
		weather repairs 411(p)		<b>/</b> h\			osal records 42	rocedures records	421(a) 701		
		ad and compacted as	rsonnel at all times 411	(D)							
	*****	Il weather operational				Depositing waste in standing water prohibited 411(f)(3), 419(a)(4)  Erosion or other cover defects resulting in exposed refuse 411(o)					
		rovisions for backup e			Le	Leachate leaks or evidence of leachate seepage 411(o)					
	Waste rece	ipt records, ticket syst	em maintained 421(d)		Sa	Satisfactory intermediate cover 413(c)					
	Telephone	system and written em	ergency response plan	on site 411(k	) Le	Leachate discharge leaving landfill 419(a)(5)					
Category 2  First Violation: Score of 2 Second Violation: Score of 4 Third Violation: Score of 8											
	Cate	gory 2	Second Violation: Sco	ore of 4	Comme		stad				
		gory 2	Second Violation: Sco	ore of 4		ents: ations no	eted.				
	Adequate a	access control 417(a) ractical area, unloading	Second Violation: Score Third Violation: Score g supervised, single wo	ore of 4 e of 8	No viol		ted.				
	Adequate a Smallest pr Litter contr	access control 417(a) ractical area, unloading rol provisions maintain	Second Violation: Score Third Violation: Score g supervised, single wo	ore of 4 e of 8	No viol		eted.				
	Adequate a Smallest pi Litter contr Disease ve	access control 417(a) ractical area, unloading rol provisions maintain ctors controlled 414(a)	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g)	ore of 4 e of 8 rking face 41	No viol		eted.				
	Adequate a Smallest pr Litter contr Disease ve Contouring 411(h)(1)	access control 417(a) ractical area, unloading rol provisions maintain ctors controlled 414(a) prevents surface wate	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) er flowing into or throug	ore of 4 e of 8 rking face 41	No viol		eted.				
	Adequate a Smallest principle Litter control Disease version Contouring 411(h)(1) Plans and results of the contouring the cont	access control 417(a) ractical area, unloading rol provisions maintain actors controlled 414(a) prevents surface wate	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) er flowing into or through	ore of 4 e of 8 rking face 41 gh waste 422(c)	No viol		eted.				
	Adequate a Smallest principle Litter control Disease verification (A) (1) Plans and reasonable Annual control Smallest principle (A) (1) Plans and reasonable (A)	access control 417(a) ractical area, unloading rol provisions maintain actors controlled 414(a) prevents surface wate marrative updated to re uppliance inspection by	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) er flowing into or throug flect current operation registered professiona	ore of 4 e of 8 rking face 41 gh waste 422(c)	No viol		eted.				
	Adequate a Smallest product of the Control Disease version of the Control of the	access control 417(a) ractical area, unloading rol provisions maintain ctors controlled 414(a) prevents surface wate marrative updated to re upliance inspection by n-off control system pr	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) or flowing into or throug flect current operation registered professional esent and adequate 418	ore of 4 e of 8 rking face 41 gh waste 422(c) Il engineer 42 (a)(b)	No viol:		eted.				
	Adequate a Smallest pr Litter contr Disease ve Contouring 411(h)(1) Plans and r Annual con Run-on/run Surface wa	access control 417(a) ractical area, unloading rol provisions maintain ctors controlled 414(a) prevents surface wate marrative updated to re upliance inspection by n-off control system pr	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) or flowing into or throug flect current operation or registered professional esent and adequate 418 ff-site sediment accumulation	ore of 4 e of 8 rking face 41 gh waste 422(c) Il engineer 42 (a)(b)	No viol:		eted.				
	Adequate a Smallest pr Litter contr Disease ve Contouring 411(h)(1) Plans and r Annual con Run-on/run Surface wa Landfill con	access control 417(a) ractical area, unloading rol provisions maintain ctors controlled 414(a) prevents surface wate marrative updated to re inpliance inspection by in-off control system pricter control prevents of	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) or flowing into or throug flect current operation registered professional esent and adequate 418 ff-site sediment accumulations 420	ore of 4 e of 8 rking face 41 gh waste 422(c) Il engineer 42 (a)(b)	No viol:		eted.				
Entry	Adequate a Smallest process of the Contouring 411(h)(1) Plans and a Annual con Run-on/run Surface was Landfill con Adequate m	ractical area, unloading to provisions maintain ctors controlled 414(a) prevents surface water arrative updated to respect to the provision by the provision of control system proter control prevents of mplies with liquid restations.	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) or flowing into or throug flect current operation registered professional esent and adequate 418 ff-site sediment accumulations 420	ore of 4 e of 8 rking face 41 gh waste 422(c) Il engineer 42 (a)(b)	No viol:	ations no	REQUENCY B	SCORE.	OTAL SCORE:		
Entry Exit T	Adequate a Smallest pr Litter contr Disease ve Contouring 411(h)(1) Plans and r Annual con Run-on/run Surface wa Landfill con Adequate r Time:	access control 417(a) ractical area, unloading rol provisions maintain ctors controlled 414(a) g prevents surface wate narrative updated to re npliance inspection by n-off control system pr ter control prevents of mplies with liquid restr	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) er flowing into or through flect current operation registered professional esent and adequate 418 ff-site sediment accumulations 420 over vegetation 411(i)	ore of 4 e of 8 rking face 41° gh waste 422(c) Il engineer 42° (a)(b)	No viol:	ations no		tion	OTAL SCORE:		
	Adequate a Smallest pr Litter contr Disease ve Contouring 411(h)(1) Plans and r Annual con Run-on/run Surface wa Landfill con Adequate r Time:	ractical area, unloading tol provisions maintain ctors controlled 414(a) prevents surface water arrative updated to respect to the surface inspection by noff control system proter control prevents of mplies with liquid restinationance of final control prevents of maintenance of final control prevents of the surface of the sur	Second Violation: Score Third Violation: Score g supervised, single wo ned 411(g) or flowing into or throug flect current operation registered professiona esent and adequate 418 ff-site sediment accumulations 420 over vegetation 411(i)  Date: Total Hours:	ore of 4 e of 8  rking face 41  gh waste 422(c) Il engineer 42: (a)(b) Ilation 411(h)(	No viol:	ECTION FR 0 -16 Qua ≥17 Mon	REQUENCY B	tion	OTAL SCORE:		
Exit T	Adequate a Smallest pr Litter contr Disease ve Contouring 411(h)(1) Plans and r Annual con Run-on/run Surface wa Landfill con Adequate r Time:	ractical area, unloading rol provisions maintain ctors controlled 414(a) prevents surface water anarrative updated to respond to the respondence inspection by noff control system proter control prevents of mplies with liquid restraintenance of final control prevents of maintenance of final control prevents of the prevents of t	Second Violation: Score Third Violation: Score g supervised, single wo ned 411(g) or flowing into or throug flect current operation registered professiona esent and adequate 418 ff-site sediment accumulations 420 over vegetation 411(i)  Date: Total Hours:	rking face 41° gh waste 422(c) Il engineer 42° (a)(b) Ilation 411(h)(	No viola (c) (3(b) (2) (1) (1) (1) (1) (1) (1) (1) (1) (1) (1	ECTION FR 0 -16 Qua ≥17 Mon	REQUENCY B arterly Inspec thly Inspectic	tion	OTAL SCORE: 0 0 03/31/04		
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Exit Ti 421(a)( 421(a)( 412(a)	Adequate a Smallest pr Litter contr Disease ve Contouring 411(h)(1) Plans and r Annual con Run-on/run Surface wa Landfill con Adequate n Time: ime: 8), 1204(b) 8), 428(h)	process control 417(a) ractical area, unloading rol provisions maintain ctors controlled 414(a) grevents surface wate marrative updated to re mpliance inspection by n-off control system pre reter control prevents of mplies with liquid reste maintenance of final co  0945  1115  Date of last ground Date of last liner co	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g)  er flowing into or throug flect current operation registered professional esent and adequate 418 ff-site sediment accumulations 420 over vegetation 411(i)  Date: Total Hours:  Reg dwater monitoring report in inspection for hazard	rking face 41 gh waste 422(c) Il engineer 42: (a)(b) Ilation 411(h)(	No viola  3(b)  2)  4 INSP  05/27/04  09/25/03  06/29/04	ections no 0 -16 Qua ≥17 Mon cords	REQUENCY B Interly Inspect thly Inspection Date of last e	r score.	0		
421(a)( 421(a)( 412(a) 415, 42	Adequate a Smallest pr Litter contr Disease ve Contouring 411(h)(1) Plans and r Annual con Run-on/run Surface wa Landfill con Adequate n Time: ime: 8), 1204(b) 8), 428(h)	process control 417(a) ractical area, unloading rol provisions maintain ctors controlled 414(a) grevents surface wate marrative updated to re mpliance inspection by n-off control system pre reter control prevents of mplies with liquid reste maintenance of final co  0945  1115  Date of last ground Date of last liner co	Second Violation: Score Third Violation: Score g supervised, single wo led 411(g) ber flowing into or throug flect current operation or registered professional esent and adequate 418 ff-site sediment accumulations 420 over vegetation 411(i)  Date: Total Hours:  Reg dwater monitoring report the inspection for hazard rly methane monitoring	rking face 41 gh waste 422(c) Il engineer 42: (a)(b) Ilation 411(h)(	No viola  3(b)  2)  4 INSP  1.22 Rec  05/27/04  09/25/03	ECTION FR 0 -16 Qua ≥17 Mon COTCS 423(b)	REQUENCY B arterly Inspect thly Inspection Date of last e month	r score.	0 03/31/04		

Class 1	Lf Form	1997/ Rev Jan. 2003 / Rev 8-19-0
Data	Entry	Number

Person interviewed if applicable:

Johann Linker

Last months reported waste received

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Signature of Inspector:

□ Copies	requested	by_
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17,283.9 Cy



October 25, 2004

Mr. Johann Linker Browning-Ferris Inc. 3817 Mablevale Pike Little Rock, Ar 72204-5315

RE: AFIN Nbr: 60-00565 Permit Nbr. 151-S1-R3

Dear Mr. Linker:

THE WARRY

On October 25, 2004, I performed a routine inspection of your facility pursuant to the Arkansas Solid Waste Management Reg. 22, and the above referenced permit. A copy of the inspection report is enclosed for your review.

Refer to the report to note any allegations of deficiencies that require corrective action. Please send a written response to the corrective action taken. Failure to respond to this letter in writing shall be construed as an admission of any allegations contained therein. Any items noted that are neglected and persistent may warrant enforcement action.

If I can be any further assistance, feel free to contact me at (501) 682-0581 or at the address below.

Sincerely,

Kennoy Burks-

Kenneth Burks, Inspector Solid Waste Division

cc: Central Files Enforcement Branch Files, SW



# Arkansas Department of Environmental Quality Solid Waste Management Division Class 1 Landfill Inspection



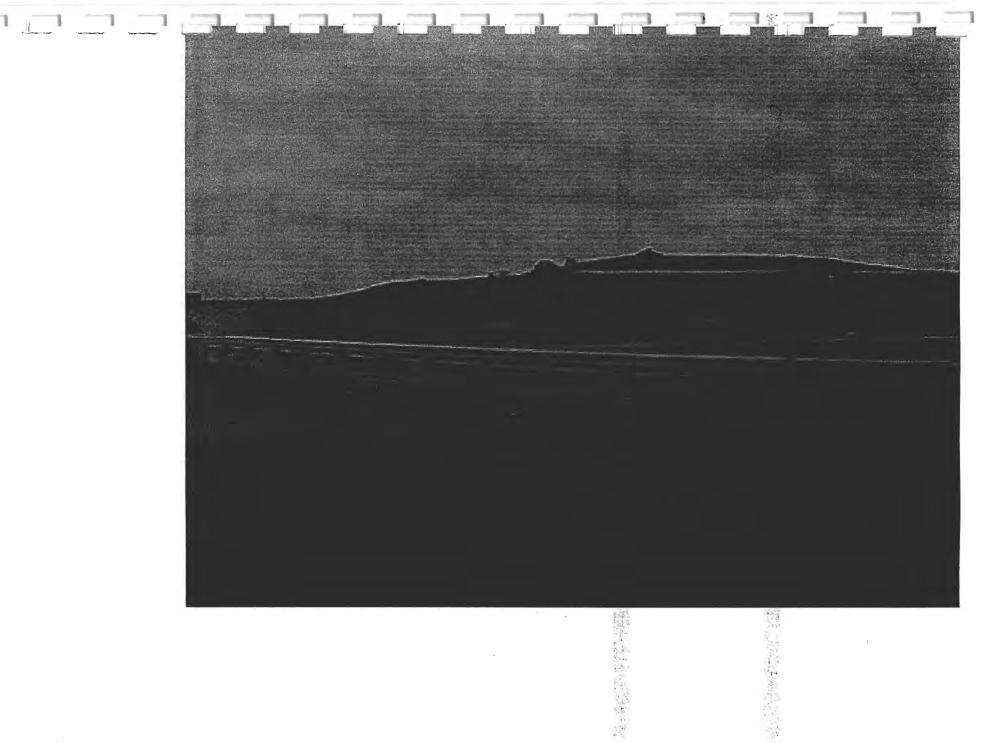
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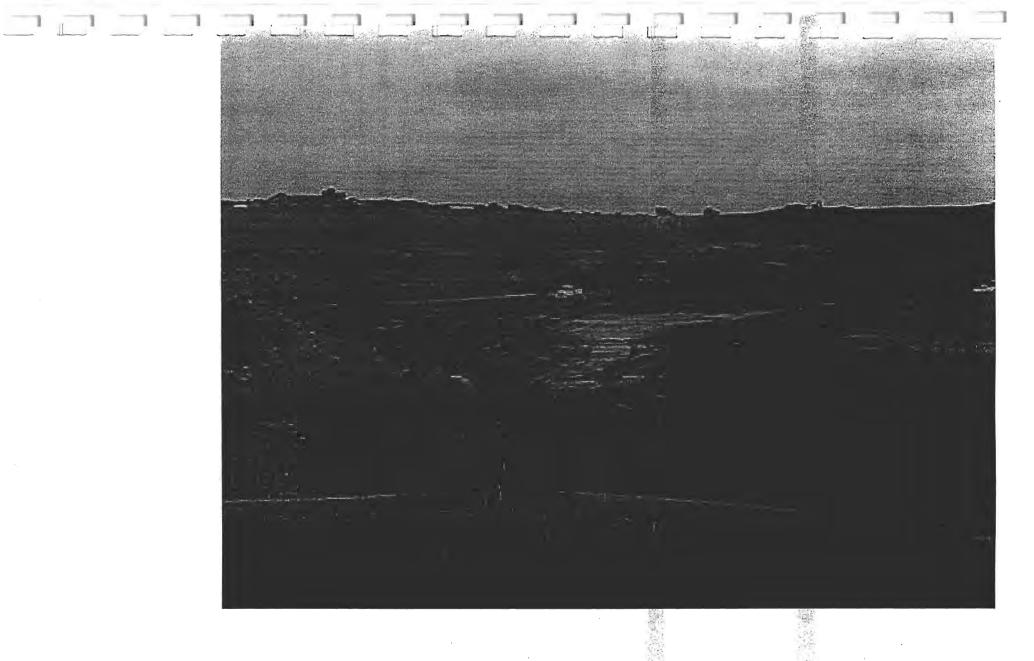
	au de	Total Control	91	ass II La		She	Cuon				
Site	Name:	BFI Model Fill			County:		Pulasi	(i	AFIN:	•	60-00565
Loca	tion:	3817 Mabelvale Pike Little Rock, AR 72204			Telephor	ı	501/56	2-0070	Permit N	lo.:	0151-S1-R3
	ress of nittee:	Same as locati			E-Mail Address	:	Johann win.co	n.linker@ m	Licensed Johann		rator & No: r - 01120
		立舞集團	Regulation	122 - 0	peratio	na	Stan	dards			
Category 1  First Violation: Score of 1 Second Violation: Score of 2 Third Violation: Score of 3					Category 3  First Violation: Score of 3 Second Violation: Score of 6 Third Violation: Score of 12				Score of 6		
	Adequate e	mployee facilities 411(		<u> </u>	12.00	Ope	rations in a	accordance wit			
	Record kee	ping meets requireme	nts specified by regulat	tions 421(a)(b)		Gas	monitoring	g program 415			
	Feeding of	farm or domestic anim	als prohibited 411(f)(2)			Faci	ility implem	ents operating	plan and na	rative 4	122(a)(b)
		erations meet approve						ste exclusion p			
			formation signs posted	1417(b)				ily/alternative		b)	
		fined to hours of oper						prohibited 416	(D), 411(f)(4)		
		of waste prohibited 4					se dischar	sal records 42	24/6		72. 2.
		weather repairs 411(p	rsonnel at all times 411	(/h)			<u> </u>	disposal and p		ords 4	21(a) 701
		ad and compacted as	*******			_					1(f)(3), 419(a)(4)
		If weather operational				<u> </u>	<del></del>				ed refuse 411(o)
		rovisions for backup e				-}		or evidence o			
	Waste rece	pt records, ticket syst	em maintained 421(d)			Sati	sfactory In	termediate cov	er 413(c)		
	Telephone	system and written em	ergency response plan	on site 411(k	)	Lea	chate dis	charge leavii	ng landfill 4	19(a)(5	)
First Violation: Score of 2 Second Violation: Score of 4 Third Violation: Score of 8  Adequate access control 417(a)  Smallest practical area, unloading supervised, single working face 411(c)  Litter control provisions maintained 411(g)  Disease vectors controlled 414(a)  Contouring prevents surface water flowing into or through waste 411(h)(1)  Plans and narrative updated to reflect current operation 422(c)  Annual compliance inspection by registered professional engineer 423(b)				No v	nmer violat	tions no	oted.				
		<del></del>	esent and adequate 418		(2)						
	·	nplies with liquid rest	ff-site sediment accumu	ulation 411(n)	(2)						
	·	naintenance of final co									
- 1		<del></del>		40/05/5						TC	TAL SCOPE
	Time:	1015	Total Hours:	10/25/0	11	INSPECTION FREQUENCY BY SCORE:  0 -16 Quarterly Inspection  ≥17 Monthly Inspection  0					
1000			Reg	julation	1 <b>22</b> - R	Rec	ords				7. 4
421(a	)(8), 1204(b)	Date of last ground	dwater monitoring repo	rt	05/27/04		423(b)	Date of last e	ngineering re	port	03/31/04
421(a	)(8), 428(h)	Date of last liner co	ertification report		09/25/03	$\rightarrow$					
412(a	)		n inspection for hazard	ous waste	10/25/04		Total # for	month	24		
J	\$21(e)		rly methane monitoring		09/22/04	-	Detection		0.0		
	), 412(a)(2)	Date of last specia	-	· 			Disposal id				
		Date of leachate di			10/25/04	<u> </u>	Method	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	W.F.	15:	*044
421(f)			<u> </u>		Cont.	_		04.405		LR V	V VV
421(b	"	Last months repor	ted waste received				Tons	24,185	Су		
Person Interviewed if applicable:  Johann Linker				Signature of Kennoy	Bu	ector:					

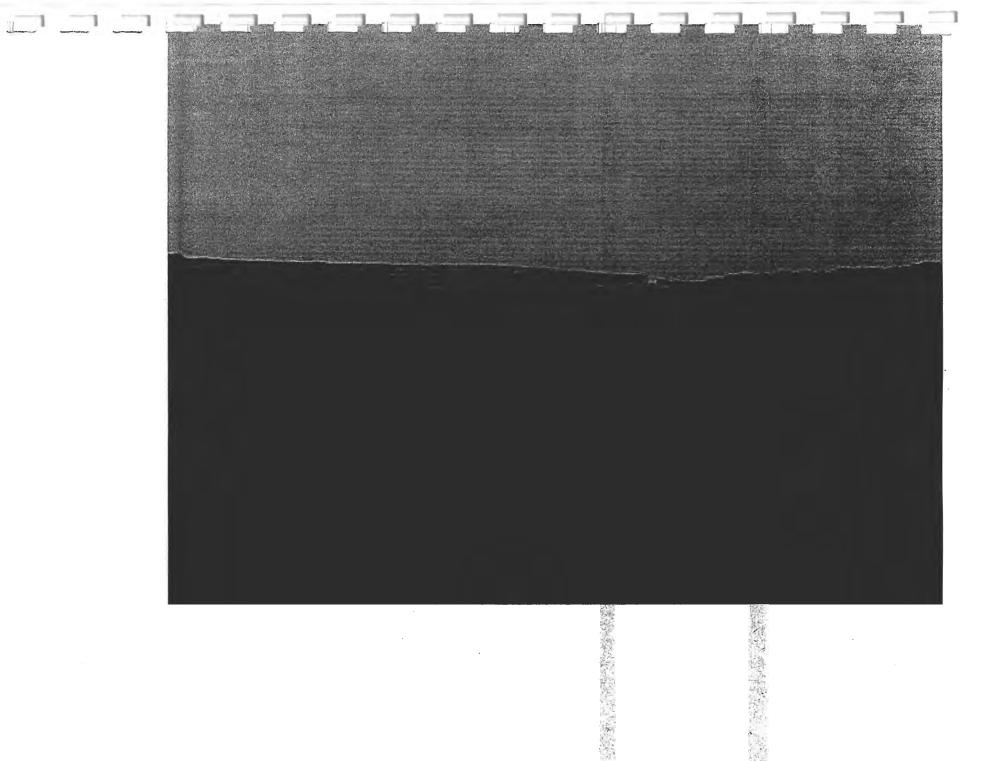
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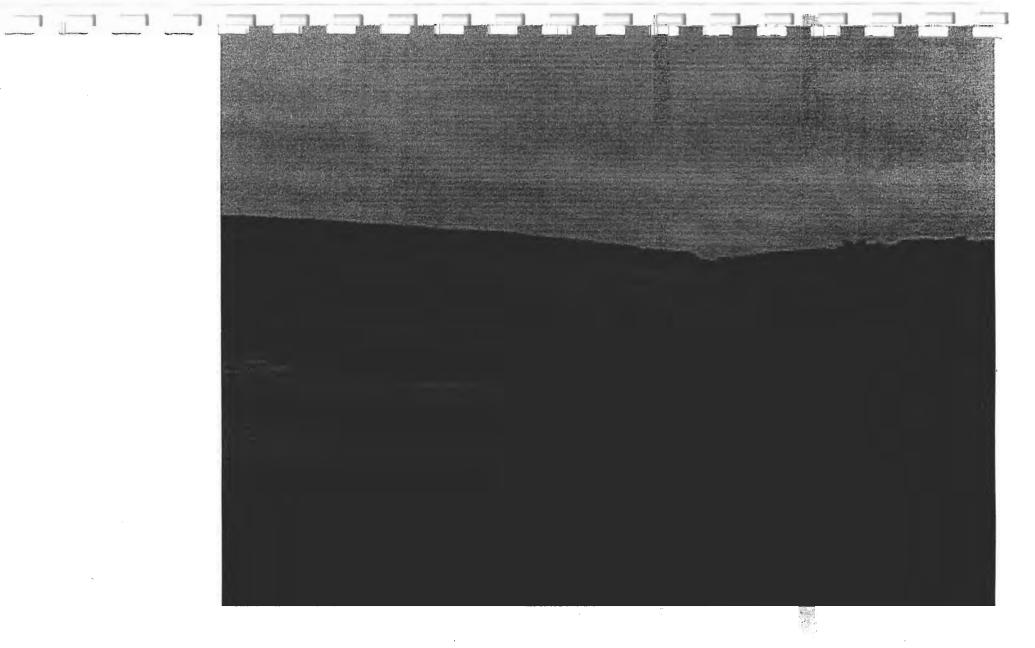
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□ Copies requested by

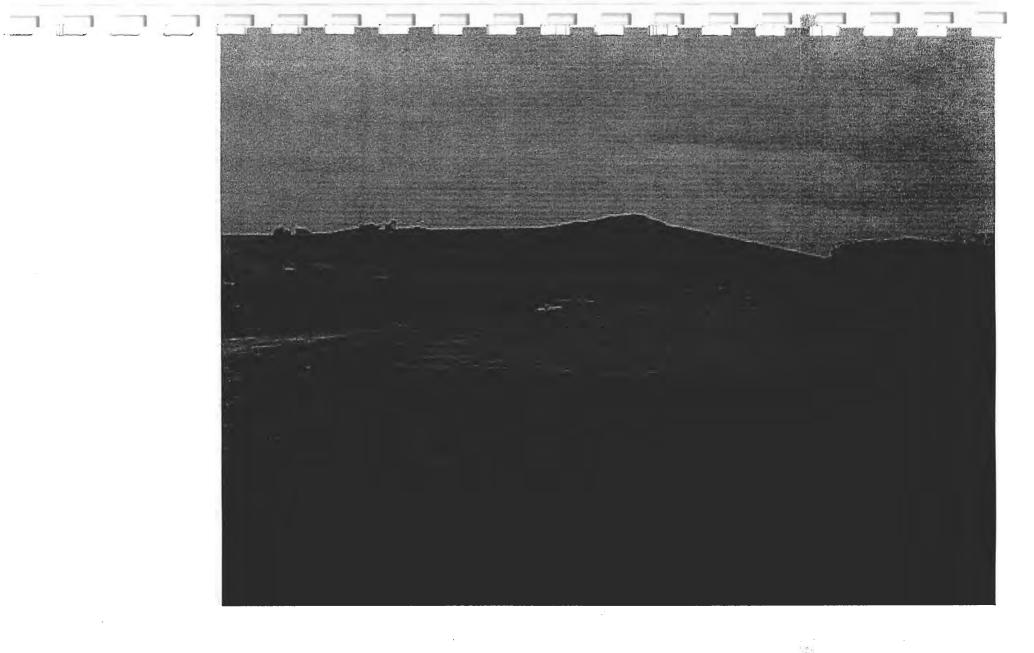












### APPENDIX C

## **Explosive Gas Monitoring Reports**

2004 Annual Engineering Inspection Report BFI Model Fill Sanitary Landfill Permit # 151-S1-R4 March 2005



#### EXPLOSIVE GAS MONITORING PROBE REPORT

TESTING DONE BY: JOHANN LINKER	DATE: 2/17/04
GAS SENSING DEVICE: GASCOPE	MODEL NO: 62S
DATE LAST CALIBRATED:02/17/04	CALIBRATION GAS 2%
PRESSURE SENSING DEVICE: N/A	MODEL NO: N/A
AMBIENT AIR TEMPERATURE:OF	RELATIVE HUMIDITY: N/A
AMBIENT BAROMETRIC PRESSURE:	INCHES OF HG.
OBSERVED WEATHER CONDITION:	

				1			
PROBE	TIME OF	COMBUSTIBLE	T=0.00125XH	% GAS	PRESSURE	TOTAL	DEPT TO
DESIGNATION	SAMPLING	% LEL % GAS	THRESHOLD FORMULA	HIGHER/	(IN. OF H20)	PROBE	WATER
		(VOL)	(H=DISTANCE	LOWER		DEPT (FT)	(FT)
			TO STRUCTURE	THAN T		` ′	( - /
I.N.34,42.717	2:02	0/0					
W092.19.784							
2.N.34.42.755	2:11	0/0				,	
w.092.19.784						_	
3.N.34.42.615	2:14	0/0				:	
W.092.19.851						-	
4.N.34.42.510	2:25	0/0				,	
W.092.19.903						-	
5.N.34.42.363	2:34	0/0				,	
W.092.19.043						_	
6.N.34.42.298	2:41	0/0				,	
W.092.18.860		. ——				-	
7.N.34.42.234	2:50	0/0				,	
W.092.18.673						-	
8.N.34.42.172	3:04	0/0				,	
W.092.19.497		<del></del>					

COMMENTS: _



#### EXPLOSIVE GAS MONITORING PROBE REPORT

TESTING DONE BY: JOHANN LINKER		DATE: 6/29/04
GAS SENSING DEVICE: GASCOPE		MODEL NO: 62S
DATE LAST CALIBRATED:06/29/04		CALIBRATION GAS 2%
PRESSURE SENSING DEVICE: N/A		MODEL NO: N/A
AMBIENT AIR TEMPERATURE:78	_OF	RELATIVE HUMIDITY: N/A
AMBIENT BAROMETRIC PRESSURE:		INCHES OF HG.
OBSERVED WEATHER CONDITION:		

PROBE DESIGNATION	TIME OF SAMPLING	COMBUSTIBLE % LEL % GAS (VOL)	T=0.00125XH THRESHOLD FORMULA (H=DISTANCE TO STRUCTURE	% GAS HIGHER/ LOWER THAN T	PRESSURE (IN. OF H20)	TOTAL PROBE DEPT (FT)	DEPT TO WATER (FT)
1.N.34.42.717 W092.19.784	10:20	0/0					
2.N.34.42.755 w.092.19.784	10:28	<u>0/0</u>				, –	
3.N.34.42.615 W.092.19.851	10:34	0/0				-	
4.N.34.42.510 W.092.19.903	10:45	<u>0/0</u>				-	
5.N.34.42.363 W.092.19.043	10:58	0/0				-	
6.N.34.42.298 W.092.18.860	11:16	0/0				,	
7.N.34.42.234 W.092.18.673	11:25	0/0				-	
8.N.34.42.172 W.092.19.497	11:35	0/0				, -	

				1
COMMENT	S: _		*****	
			and principle of an incine. This was an incidence with a second commence of the	
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#### EXPLOSIVE GAS MONITORING PROBE REPORT

TESTING DONE BY: JOHANN LINKER		DATE: 9/22/04
GAS SENSING DEVICE: GASCOPE		MODEL NO: 62S
DATE LAST CALIBRATED:09/22/04		CALIBRATION GAS 2%
PRESSURE SENSING DEVICE: N/A		MODEL NO: N/A
AMBIENT AIR TEMPERATURE:80	_OF	RELATIVE HUMIDITY: N/A
AMBIENT BAROMETRIC PRESSURE:		INCHES OF HG.
OBSERVED WEATHER CONDITION:		

PROBE DESIGNATION	TIME OF SAMPLING	COMBUSTIBLE % LEL % GAS (VOL)	T=0.00125XH THRESHOLD FORMULA (H=DISTANCE TO STRUCTURE	% GAS HIGHER/ LOWER THAN T	PRESSURE (IN. OF H20)	TOTAL PROBE DEPT (FT)	DEPT TO WATER (FT)
1.N.34.42.717 W092.19.784	9:10	0/0	TOSTRUCTURE	IIIAN I			
2.N.34.42.755 w.092.19.784	9:20	0/0				,	
3.N.34.42.615 W.092.19.851	9:27	0/0				-	
4.N.34.42.510 W.092.19.903	9:35	0/0				,	
5.N.34.42.363 W.092.19.043	9:50	0/0				-	
6.N.34.42.298 W.092.18.860	10:15	0/0				-	
7.N.34.42.234 W.092.18.673	10:22	0/0				-	
8.N.34.42.172 W.092.19.497	10:30	0/0				-	

COMMENTS:



#### EXPLOSIVE GAS MONITORING PROBE REPORT

TESTING DONE BY: JOHANN LINKER	DATE: 10/29/04
GAS SENSING DEVICE: GASCOPE	MODEL NO: 62S
DATE LAST CALIBRATED: 10/29/04	CALIBRATION GAS 2%
PRESSURE SENSING DEVICE: N/A	MODEL NO: N/A
AMBIENT AIR TEMPERATURE:80C	OF RELATIVE HUMIDITY: N/A
AMBIENT BAROMETRIC PRESSURE:	INCHES OF HG.
OBSERVED WEATHER CONDITION:	

		T	I m 2 6640 5144	1			
PROBE DESIGNATION	TIME OF SAMPLING	COMBUSTIBLE % LEL % GAS (VOL)	T=0.00125XH THRESHOLD FORMULA (H=DISTANCE TO STRUCTURE	% GAS HIGHER/ LOWER THAN T	PRESSURE (IN. OF H20)	TOTAL PROBE DEPT (FT)	DEPT TO WATER (FT)
1.N.34.42.717 W092.19.784	7:20	0/0					
2.N.34.42.755 w.092.19.784	7:28	0/0				-	****
3.N.34.42.615 W.092.19.851	7:37	0/0				-	
4.N.34.42.510 W.092.19.903	7:45	0/0				-	
5.N.34.42.363 W.092.19.043	<u>7:56</u>	0/0				-	
6.N.34.42.298 W.092.18.860	8:10	0/0				,	
7.N.34.42.234 W.092.18.673	8:21	0/0				-	
8.N.34.42.172 W.092.19.497	8:30	0/0				-	

COMMENTS: _

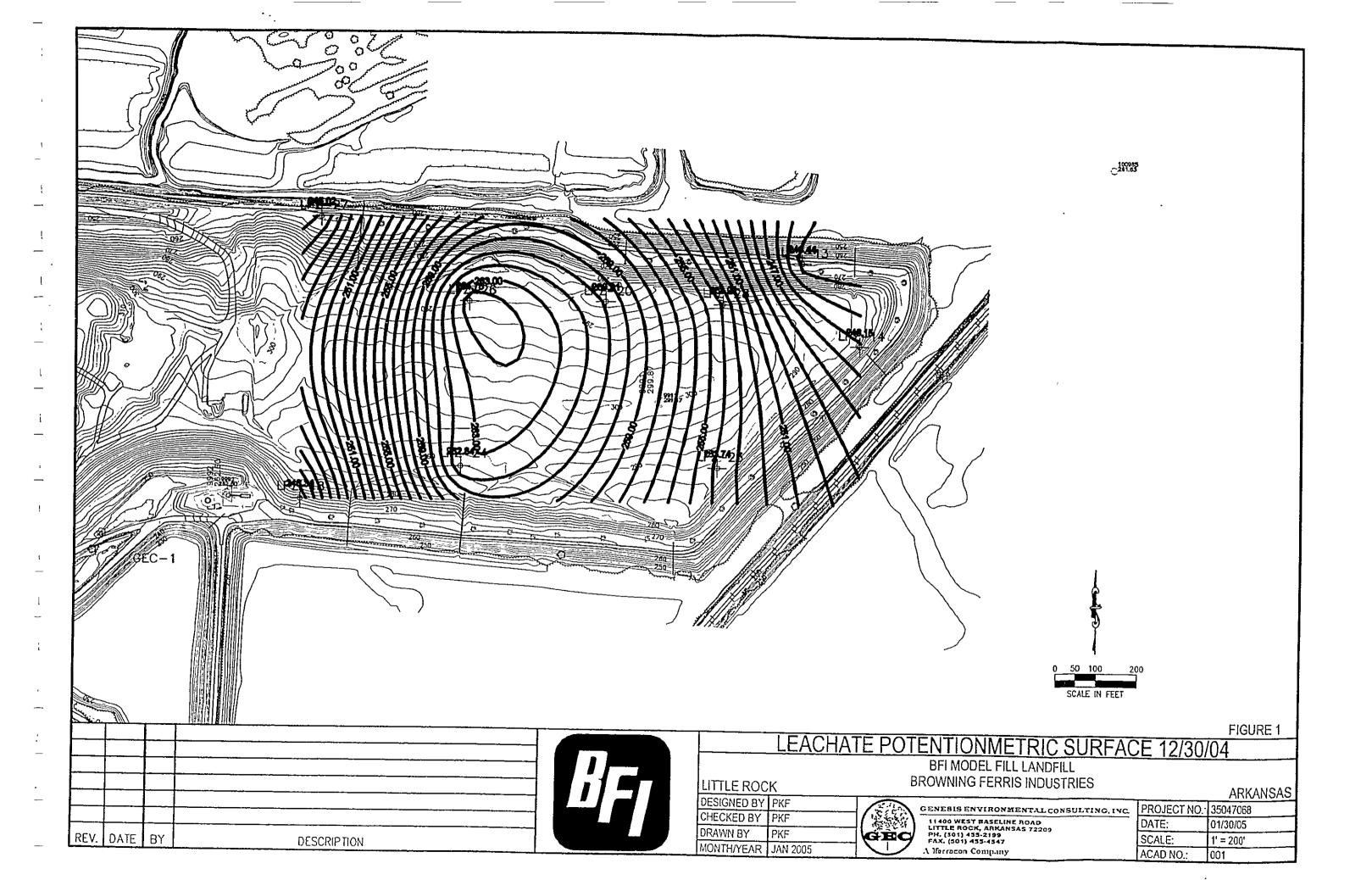
### APPENDIX D

Leachate Volumes and Potentiometric Map

2004 Annual Engineering Inspection Report BFI Model Fill Sanitary Landfill Permit # 151-S1-R4 March 2005

## Yearly Leachate Disposal BFI Model Fill Landfill

Month	Total Discharge
	(gallons)
January	66068
February	248576
March	338263
April	323,533
May	258,396
June	193,710
July	193,710
August	141,025
September	85,525
October	111,558
November	161,719
December	161,011
Total Leachate	2,283,094.00



## **APPENDIX E**

### Closure and Post Closure Cost Estimates

2004 Annual Engineering Inspection Report BFI Model Fill Sanitary Landfill Permit # 151-S1-R4 March 2005



May 14, 2003

Ms. Susan Speake Programs Branch Manager Solid Waste Management Division 8001 National Drive Little Rock, Arkansas 72219-8913 Certified Mail No 7002 2410 0006 7572 9941

Subject:

Financial Assurance for Closure/Post Closure Care, BFI Waste Systems of

Arkansas, LLC., BFI Modelfill Landfill, Permit No. 151-S1-R3

Dear Ms. Speake:

Please find enclosed a Rider to Surety Bonds Power Nos. 850410 for amount of \$3,989,973.00 for Financial Assurance for Closure and No. 850411 for amount of \$3,061,407.00 for Financial Assurance for Post Closure. The bonds were forward to your office by mail-dated March 31, 2003. The riders are for the purpose of a name change from BFI Waste Systems of North America, Inc. to BFI Waste Systems of Arkansas, LLC. Additionally enclosed is a Certificate of Insurance for Closure or Post Closure (C/PC) Care Policy # PEC000236601 issued by the Indian Harbor Insurance Company effective April 1, 2003.

The bonds are to replace the Certificate of Insurance for C/PC Care issued by the Indian Harbor Insurance Company.

BFI respectfully request the release of the Certificate of Insurance for Financial Assurance for C/PC Care. Your prompt consideration and release of the Certificate of Insurance would be appreciated.

If you have any questions regarding this correspondence or the enclosures, please contact me at 800/294-9770.

Sincerely,

James E. Fleming
Environmental Manager

Cc:

Ed Hood

John Kastens

Jim Schermerhorn

Keith Shirley

Dale Stevener

#### RIDER TO SURETY BOND

PURPOSE: NAME CHANGE

To be attached to Bond Number 850411 issued by Evergreen National Indemnity Company, as Surety in the amount of Three Million Sixty One Thousand Four Hundred Seven and 00/100 Dollars(\$3,061,407.00) effective the 4th day of March 2003, on behalf of BFI Waste Systems of North America, Inc., in favor of the State of Arkansas Department of Environmental Quality.

In consideration of the premium charged for the attached bond, it is mutually understood and agreed by the Principal and the Surety that the bond shall be modified to read as follows: The above said Principal name change to BFI Waste Systems of Arkansas, LLC. All other items, limitations and conditions of said bond except as herein expressly modified shall remain unchanged.

Signed, sealed and dated this 14th day of April 2003.

Principal:

BFI Waste Systems of Arkansas, LLC

Surety: EVERGREEN NATIONAL INDEMNITY COMPANY

Nicole Skedel, Attorney-In-Fact

## EVERGREEN NATIONAL INDEMNITY COMPANY COLUMBUS, OBIO POWER OF ATTORNEY

PRINCIPAL BFI Waste Systems of Arkansas, LLC

CONTRACT AMOUNT	AMOUNT OF BOND \$ 3,061,407.00
	POWER NO. 850411
KNOW ALL MEN BY THESE PRESENTS: That the Evergreen National Indeconstitute and appoint: ****Nicole Skedel*****	minity Company, a corporation in the State of Ohio does hereby nominare,
its true and lawful Artorney(s)-In-Fact to make, execute, attest, seal and deliver for and all bonds, undertakings, recognizances and written obligations in the nature the Fower of Attorney shall not exceed  Three Million Sixty One Thousand Four Hundred	ereof, PROVIDED, however, that the obligation of the Company under this
	•
This Power of Attorney is granted and is signed by facsimile pursuant to the for February, 1994:	onowing Resolution adopted by its board of Directors on the 23rd day of
"RESOLVED, That any two officers of the Company have the authority to make fact such persons, firms, or corporations as may be selected from time to time. FURTHER RESOLVED, that the signatures of such officers and the Scal of the relating thereto by facsimile; and any such Power of Attorney or certificate beaution the Company; and any such powers so executed and certified by facsic Company in the future with respect to any bond or undertaking to which it is attached.	Company may be afficed to any such Power of Attorney or any certificate ring such facsimile signatures or facsimile scal shall be valid and binding mile signatures and facsimile seal shall be valid and binding upon the
IN WITNESS WHEREOF, the Byergreen National Indomnity Company has caused by its duly authorized officers, this 27th day of August, 2001.	ed its comporate seal to be affixed hereunto, and these presents to be signed
SEAT 1965	EVERGREEN NATIONAL INDEMNITY COMPANY  Roswell P. Ellis, President
Notary Public) State of Ohio) SS:	Glenn D. Southwick, Treasurer
	4
On this 27th day of August, 2001, before the subscriber, a Notary for the S Ellis and Glenn D. Southwick of the Evergreen National Indemnity Company, to r who executed the proceding instrument and admondedged the execution of the sa of said Company aforesaid, and that the seal affixed to the preceding instrument signatures as officers were duly affixed and subscribed to the said instrument by the Company, referred to in the preceding instrument, is now in force.  IN TESTIMONY WHEREOF, I have hereunto set my band and affixed my	me and being by me duly sworn, deposed and said that they are the officers t is the Corporate Seal of said Company, and the said Corporate Seal and the authority and direction of said Corporation, and that the resolution of said official seal at Columbus, Ohio, the day and year above written.
	Sue E. Duffy Notary Public State of Ohio My Commission expires August 6, 2004
State of Ohio ) SS:	
I the undersigned, Secretary of the Evergreen National Indomnity Company foregoing Power of Attorney remains in full force and has not been revoked; and above, is now in force.  Signed and sealed in Columbus, Ohio this 14th day of ADEI.	
	Kurt H. Weiland, Secretary Any reproduction or facsimile of this form is void and invalid.

#### RIDER TO SURETY BOND

PURPOSE: NAME CHANGE

To be attached to Bond Number <u>850410</u> issued by <u>Evergreen National Indemnity Company</u>, as Surety in the amount of <u>Three Million Nine Hundred Eighty Nine Thousand Nine Hundred</u>

<u>Seventy Three and 00/100 Dollars(\$3,989,973.00)</u> effective the 4th day of March 2003, on behalf of <u>BFI Waste Systems of North America, Inc.</u>, in favor of the <u>State of Arkansas Department</u> of Environmental Quality.

In consideration of the premium charged for the attached bond, it is mutually understood and agreed by the Principal and the Surety that the bond shall be modified to read as follows:

The above said Principal name change to <u>BFI Waste Systems of Arkansas, LLC.</u>

All other items, limitations and conditions of said bond except as herein expressly modified shall remain unchanged.

Signed, sealed and dated this 14th day of April 2003.

Principal:

BFI Waste Systems of Arkansas, LLC

By:

(Title

Surety

EVERGREEN NATIONAL INDEMNITY COMPANY

Nicole Skedel, Attorney-In-Fac

#### EVERGREEN NATIONAL INDEMNITY COMPANY

COLUMBUS, OHIO POWER OF ATTORNEY

PRINCIPAL BET Waste Systems of Arkansas, LLC	EFFECTIVE DATE April 14, 2003
CONTRACT AMOUNT	AMOUNT OF BOND \$3,989,973.00
	power no. 850410
KNOW ALL MEN BY THESE PRESENTS: That the Evergreen National Indomesionative and appoint:  ****Nicole Skedel*****	uity Company, a corporation in the State of Ohio does hereby nominate.
its true and lawful Attorney(s)-in-Pact to make, execute, attest, seal and deliver for a and all bonds, undertakings, recognizances and written obligations in the nature there. Power of Attorney shall not exceed	and on its behalf, as Surety, and as its act and deed, where required, any of, PROVIDED, however, that the obligation of the Company under this
Three Million Nine Hundred Eighty Nine Thousand	Nine Hundred Seventy Three and No/100 Dollars.
This Power of Anomey is granted and is signed by facsimile pursuant to the follo February, 1994:	wing Resolution adopted by its Board of Directors on the 21rd day of
"RESOLVED, That any two officers of the Company have the authority to make, of fact such persons, firms, or corporations as may be selected from time to time. FURTHER RESOLVED, that the signatures of such officers and the Scal of the Corelating thereto by facsimile; and any such Power of Attorney or certificate bearing upon the Company; and any such powers so executed and certified by facsimile Company in the future with respect to any band or undertaking to which it is attached.	mpany may be affixed to any such Power of Attorney or any certificate such facsimile signatures or facsimile seal shall be valid and binding a signatures and facsimile seal shall be valid and binding upon the
IN WITNESS WHEREOF, the Evergreen National Indemnity Company has caused by its duly authorized officers, this 27th day of August, 2001.	its corporate seal to be affixed hereunto, and these presents to be signed
SIE AIT	Roswell P. Ellis, President  Glena D. Southwick, Treasurer
Notary Public) State of Ohio) SS:	Giena D. Southwick, Treasurer
On this 27th day of August, 2001, before the subscriber, a Notary for the State Ellis and Glenn D. Southwick of the Evergreen National Indemnity Company, to me who executed the preceding instrument and acknowledged the execution of the same of said Company aforesaid, and that the seal affixed to the preceding instrument is signatures as officers were duly affixed and subscribed to the said instrument by the a Company, referred to in the preceding instrument, is now in force.	personally known to be the individuals and officers described herein, and and being by me duly sworn, deposed and said that they are the officers the Corporate Seal of said Company, and the said Corporate Seal and authority and direction of said Corporation, and that the resolution of said
IN TESTIMONY. WHEREOF, I have hereunto set my hand and affixed my off	Sue E. Duffy Notary Public State of Ohio My Commission expires August 6, 2004
Stare of Ohio) SS:	·
I, the undersigned, Secretary of the Evergreen National Indemnity Company, a foregoing Power of Attorney remains in full force and has not been revoked; and fur above, is now in force.  Signed and scaled in Columbus, Ohio this 14th day of Apri	1 2003
	Kurt H. Weiland, Secretary  Any reproduction or facsimile of this form is void and invalid.



## **ALLIED WASTE**

## Risk Management Department Memorandum

TO:

Rod Bloese

FROM:

Christopher Papaccio

DATE:

April 1, 2003

SUBJECT:

FAM Renewals for Model Fill LF

Attached please find the Renewal Certificate of Insurance for Model Fill Landfill. Please note that this renewal is one of the policies that we are working to replace. However, until the respective State Agency approves the new FAM and sends me a release for this policy we need to have duplicate coverage. Please make a copy for your files and forward the original on to the respective State Agency. A copy of the document should also be kept at the site.

Should you have any questions please let me know. My direct dial number is 480-627-7134.

#### CERTIFICATE OF INSURANCE FOR CLOSURE OR POST-CLOSURE CARE

Name and Address of Insurer (herein called the "Insurer"):

Indian Harbor Insurance Company Seaview House, 70 Seaview Avenue Stamford, CT 06902-6040

Name and Address of Insured (herein called the "Insured"):

BFI Waste Systems of North America 3817 Mabeline Pike Little Rock, AR 72204

#### FACILITY COVERED:

MSW Permit Number:

151-S1-R3

Name:

Model Fill Landfill

Address:

3817 Mabeline Pike

Little Rock, AR 72204

Closure Amount:

\$3,989,973

Post-Closure Amount:

\$3,061,407

Face Amount:

\$7,051,380

Policy Number:

PEC000236601

Effective Date:

'April 1, 2003

The Insurer hereby certifies that it has issued to the Insured the policy of Insurance identified above to provide financial assurance for closure and post-closure care for the facilities identified above. The Insurer further warrants that such policy conforms in all respects with the requirements of ADEQ Regulation No. 23 § 264.143(e), 264.145(e), 265.143(d), and 265.145(d), as applicable and as such regulations were constituted on the date shown immediately below. It is agreed that any provision of the policy inconsistent with such regulations is hereby amended to eliminate such inconsistency.

Whenever requested by the Director of the Arkansas Department of Environmental Quality, the Insurer agrees to furnish to the Director a duplicate original of the policy listed above, including all endorsements thereon.

I hereby certify that the wording of this certificate is identical to the wording specified in ADEQ Regulation No. 23 § 264.151(e) as such regulations were constituted on the date shown immediately below.

(Authorized signature for Insurer)

John E.R. McGovern, Senior Underwriter Authorized Representative for Indian Harbor Insurance Company

(Signature of witness or notary)

3/20/03

SEAL

Notarial Seal
Tricia L Edwards, Notary Public
Uwchlan Twp., Chester County
My Commission Expires June 21, 2004

Member, Pennsylvania Association of Notaries

May 16, 2003

Ms. Susan Speake Solid Waste Management Division 8001 National Drive Little Rock, Arkansas 72219-8913

Subject:

Financial Assurance for Closure/Post Closure Care, BFI Waste Systems of

Arkansas, LLC., BFI Modelfill Landfill, Permit No. 151-S1-R3

Dear Ms. Speake:

Please find enclosed a Rider to Surety Bonds Power Nos. 850410 for amount of \$3,989,973.00 for Financial Assurance for Closure and No. 850411 for amount of \$3,061,407.00 for Financial Assurance for Post Closure. The bonds were forward to your office by mail-dated March 31, 2003. The riders are for the purpose of a name change from BFI Waste Systems of North America, Inc. to BFI Waste Systems of Arkansas, LLC.

If you have any questions regarding this correspondence or the enclosures, please contact me at 800/294-9770.

Sincerely

James E. Fleming

Environmental Manager

Cc:

Ed Hood

John Kastens

Jim Schermerhorn

Keith Shirley

Dale Stevener



#### BFI WASTE SYSTEMS OF NORTH AMERICA, INC.

NORTH SHELBY & SOUTH SHELBY LANDFILLS
PO BOX 1207
7107 OLD MILLINGTON ROAD
MILLINGTON, TENNESSEE 38083
PHONE # (901) 872-7258
FAX # (901) 872-7205

Dal Stem	
TO: Jim Schmarham	FROM: Sommy
RE:	DATE: 05/15/03
TOTAL NUMBER OF PAGES 2	_INCLUDING THIS COVER SHEET
TRANSMITTING TO FAX N	UMBER 501/566-4849
COMMENTS:	571/578-2213

#### CONFIDENTIALITY NOTE:

This information contained in this facsimile message is legally privileged and confidential information intended only for the use of the individual or entity named above. If the reader of this wersage is not the intended recipicat, you are hereby notified that any distribution or copying of the telecopy is strictly prohibited. If you have received this telecopy in error, please immediately notify us by telephone (collect) and return the original message to us at the above address via the U.S. Postal Service. We will reimburse you for the postage. Thank you.

hp officejet 7140xi printer/fax/scanner/copier Fax-History Report for jim 5105684849 May 16 2003 8:39am

Last T	ransactio	<u>n</u>				
Date	<u>Time</u>	<u>Type</u>	Identification	<b>Duration</b>	Pages	Result

May 16 8:36am Received 9018727205 3:04 2 OK



June 18, 2003

Ms. Susan Speake Program Branch Manager Solid Waste Management Division 8001 National Drive Little Rock, AR 72219-8913

Subject:

Decreased Riders to Surety Bonds Nos. 85410 and 850411 for the BFI

Modelfill Landfill, Permit No. 151-S1-R3, BFI Waste Systems of

Arkansas, LLC.

Dear Ms. Speake:

Please find enclosed Decreased Riders to Surety Bonds for Bond Nos. 850410 and 850411. BFI submitted revised Closure and Post Closure Cost (C/PC) for the financial assurance requirement. ADEQ issued revised permit, Permit No. 0151-S1-R4 on June 2, 2003. The Permit noted Financial Assurance of \$3,989,973 00. In speaking with Mr. Jeff Little, he stated that the Department would revise the Financial Assurance to the revised C/PC cost submitted to your office.

If you have any questions regarding this letter or the enclosed renewed Financial Assurance Document, please contact Jim Schermerhorn at 501/562-0070 or me at 800/294-9770.

Sincerely

James E. Fleming

Environmental Manager

Cc:

Ed Hood

Jim Schermerhorn

Keith Shirley

Dale Stevener



Century Surety Company | Evergreen National Indemnity Company | Continental Heritage Insurance Company

#### EVERGREEN NATIONAL INDEMNITY COMPANY

Certificate 2002

The following financial information was excerpted from the Statutory Annual Statement filed by Evergreen National Indemnity Company with the Ohio Department of Insurance on March 1, 2003.

#### STATEMENT OF INCOME

Direct Written Premium Reinsurance Assumed Reinsurance Ceded Net Written Premium Change in Uneamed Net Earned Premium Losses & LAE incurred Commission Expense Other Expenses Underwriting (Loss) Investment Gain Other Income/(Expense)	\$ 26,706,948 17,190,364 (27,565,643) 16,331,669 2,557,287 13,774,382 (6,983,756) (5,925,246) (2,028,608) (1,163,228) 1,096,045 244,395
Income Before FIT Federal Income Tax	177,212 (219,000)
Net Income	\$ (41,788)
BALANCI	SHEET
Assets Invested Assets Agents' Balances (net of Reins.) Reinsurance Recoverable Other Assets Total Assets	\$ 33,969,295 957,803 1,137,423 1,408,741 \$ 37,473,262
<u>Liabilities &amp; Surplus</u> Unearned Premium Reserve Loss & LAE Reserves Other Liabilities Total Liabilities Surplus Total Liabilities and Surplus	\$ 5,402,722 9,450,603 <u>306,657</u> 15,159,982 <u>22,313,280</u> \$ 37,473,262

I hereby certify that the above information is that contained in the Statutory Annual Statement filed by Evergreen National Indemnity Company with the Ohio Department of Insurance for the year ending December 31, 2002.

John A. Marazza, Secretary

www.CenturySurety.com

## EVERGREEN NATIONAL INDEMNITY COMPANY COLUMBUS, OHIO POWER OF ATTORNEY

PRINCIPAL BFT Waste Systems of Arkansas, LLC	EFFECTIVE DATE June 11, 2003
CONTRACT AMOUNT	AMOUNT OF BOND \$ 2,877,117.00
•	POWER NO. 850411
KNOW ALL MEN BY THESE PRESENTS: That the Evergreen National Landminate, constitute and appoint:  *****Nicole Skedel******	ndemnity Company, a corporation in the State of Ohio does hereby
its true and lawful Attorney(s)-In-Fact to make, execute, attest, seal and deliver frany and all bonds, undertakings, recognizances and written obligations in the natural under this Power of Attorney shall not exceed  Two Million Eight Hundred Seventy Seven Thousand	ture thereof, PROVIDED, however, that the obligation of the Company
This Power of Attorney is granted and is signed by facsimile pursuant to the foll February, 1994:	owing Resolution adopted by its Board of Directors on the 23rd day of
"RESOLVED, That any two officers of the Company have the authority to make in-fact such persons, firms, or corporations as may be selected from time to time. FURTHER RESOLVED, that the signatures of such officers and the Seal of certificate relating thereto by facsimile; and any such Power of Attorney or certificate may be such powers to executed and certified upon the Company; and any such powers so executed and certified upon the Company in the future with respect to any bond or undertaking to which	the Company may be affixed to any such Power of Attorney or any ficate bearing such facsimile signatures or facsimile seal shall be valid to facsimile signatures and facsimile seal shall be valid and binding
IN WITNESS WHEREOF, the Evergreen National Indomnity Company has causigned by its duly authorized officers this 27th day of August, 2001.	used its corporate seal to be affixed hereunto, and these presents to be
	EVERGREEN NATIONAL INDEMNITY COMPANY
COMM. NO REV.	Camer & Cilia
OD PORTY E	Roswell P. Eilis, President
(a SEAL)	
\$ DMO #	Glenn D. Southwick, Treasurer
Notary Public)	•
State of Ohio) SS:	
On this 27th day of August, 2001, before the subscriber, a Notary for the St P. Ellis and Glenn D. Southwick of the Evergreen National Indemnity Companherein, and who executed the preceding instrument and acknowledged the executare the officers of said Company aforesaid, and that the seal affixed to the precorate Seal and signatures as officers were duly affixed and subscribed to the that the resolution of said Company, referred to in the preceding instrument, is no IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my	ty, to me personally known to be the individuals and officers described tion of the same and being by me duly sworn, deposed and said that they ceding instrument is the Corporate Seal of said Company, and the said e said instrument by the authority and direction of said Corporation, and iw in force.  y official seal at Columbus, Ohio, the day and year above written.
MACHINERY MACHINERY AND	Sue C. Duffy
State of Ohio ) SS:	Notary Public State of Otio My Commission expires August 6, 2004
I, the undersigned, Secretary of the Evergreen National Indominity Computation that the foregoing Power of Attorney remains in full force and has not been reversity therein above, is now in force.  Signed and sealed in Columbus, Ohio this 11th day of June	any, a stock corporation of the State of Ohio, DO HEREBY CERTIFY oked; and furthermore that the Resolution of the Board of Directors, set
Signed and sealed in Columbus, Onto this 11000 usy of Other	J. Muy
SEAL S	John A. Marazza, Secretary

Surety: Evergreen National Indemnity Company

By: Mittle Shed

Nicole Skedel, Attorney-In-Fact

#### DECREASE RIDER TO SURETY BOND

PURPOSE: DECREASE

To be attached to Bond Number <u>850411</u> issued by <u>Evergreen National Indemnity</u>

<u>Company</u>, as Surety in the amount of <u>Three Million Sixty One Thousand Four Hundred Seven and 00/100 Dollars (\$3,061,407,00)</u> effective the 4<sup>th</sup> day of March 2003, on behalf of <u>BFI Waste</u>

<u>Systems of Arkansas, LLC</u>, in favor of the <u>State of Arkansas Department of Environmental</u>

<u>Quality.</u>

In consideration of the premium charged for the attached bond, it is mutually understood and agreed by the Principal and the Surety that the bond shall be modified to read as follows:

The above said bond amount shall be <u>Two Million Eight Hundred Seventy Seven Thousand One Hundred Seventeen and 00/100 Dollars (Post Closure: \$2,877,117.00)</u>, effective the 11th day of June 2003.

All other items, limitations and conditions of said bond except as herein expressly modified shall remain unchanged.

Signed, sealed and dated this 11th day of June 2003.



Century Surety Company | Evergreen National Indemnity Company | Continental Heritage Insurance Company

## EVERGREEN NATIONAL INDEMNITY COMPANY Certificate 2002

The following financial information was excerpted from the Statutory Annual Statement filed by Evergreen National Indemnity Company with the Ohio Department of Insurance on March 1, 2003.

#### STATEMENT OF INCOME

Direct Written Premlum Reinsurance Assumed Reinsurance Ceded Net Written Premium Change in Unearned Net Earned Premium Losses & LAE incurred Commission Expense Other Expenses Underwriting (Loss) Investment Gain Other Income/(Expense) Income Before FIT Federal Income Tax	\$ 26,706,948 17,190,364 (27,565,643) 16,331,669 2,557,287 13,774,382 (6,983,756) (5,925,246) (2,028,608) (1,163,228) 1,096,045 244,395 177,212 (219,000)
Net income	\$ (41,788)
BALANCE SHEET	
Assets Invested Assets Agents' Balances (net of Reins.) Reinsurance Recoverable Other Assets Total Assets	\$ 33,969,295 957,803 1,137,423 1,408,741 \$ 37,473,262
Liabilities & Surplus Unearned Premium Reserve Loss & LAE Reserves Other Liabilities Total Liabilities Surplus	\$ 5,402,722 9,450,603 306,657 15,159,982 22,313,280
Total Liabilities and Surplus	\$ 37,473,262

I hereby certify that the above information is that contained in the Statutory Annual Statement filed by Evergreen National Indemnity Company with the Ohio Department of Insurance for the year ending December 31, 2002.

John A. Marazza, Secretary

www.CenturySurety.com

## EVERGREEN NATIONAL INDEMNITY COMPANY COLUMBUS, ORIO POWER OF ATTORNEY

	Waste Sys	tems of Arkansas.	LLC. · F	FFECTIVE DATE JUNE	11, 2003	
CONTRACT AMOU!	VTT		AM	OUNT OF BOND'S 1,	206,200.00	
	•			SR NO. 850410	· .	:
NOW ALL MEN B onstitute and appoint vicole Skedel	Y THESE PRESE Kathleen P.	NTS: That the Evergreen Na Price, Kathy J. Goe, Pat	tional Indomnity Con ricia A. Temple; I	npany, a corporation in the Daniel J. Clark, Willian	State of Ohio does hereb m J. Koval, Jr., Mari	y nomina a Jackso
ny and all bonds, un	dertakings, recogn	to make, execute, attest, seal nizances and written obligate exceed One Million Five Hund	ons in the nature there	of, PROVIDED, however.		
his Power of Attorn ebruary, 1994:	ey is granted and	is signed by facsimile pursus	int to the following R	esolution adopted by its B	card of Directors on the	23rd day
in-fact such pers FURTHER RES certificate relationand binding upon	sons, firms, or corposions, firms, or corposions that the sing thereto by facsiman the Company; an	is of the Company have the authorations as may be selected from signatures of such officers and nile; and any such Power of Att dany such powers so executed the respect to any bond of under the respect to any bond of under	in time to time.  If the Scal of the Complexity or certificate beat d and certified by facsi.	nany muy be affixed to any ring such facsimile signature mile signatures and facsimile	such Power of Attorney of sor facsimile seal shall be	or nny
		een National Indemnity Con is 27th day of August, 2001.		corporate seal to be affixe	d bereunto, and these pr	esents to
			EVER	Green national int	EMNITY COMPANY	
		STOWAL INDPANT		A. Alex		
		S CORPORATE 2		Roswell P. Ellis, 1	President	
		SEAL 5				•
•		27 1036 1		- Euster		
		TONIO		Glenn D. Southwie	ck, Treasurer	
Notary Public)				·	٠.	
	66.				•	
tate of Ohio)	<b>SS</b> :					
On this 27th da P. Ellis and Glenn I. terein, and who execute the officers of sa Corporate Seal and si hat the resolution of	ay of August, 2001.  D. Southwick of the uted the preceding id Company afore ignatures as office said Company, ref	I, before the subscriber, a Not he Evergreen National Indem is instrument and acknowledge esaid, and that the seal affixed as were duly affixed and sub- ferred to in the preceding inso have bereunto set my hand an	mity Company, to me ed the execution of the ed to the preceding in scribed to the said ins nument, is now in force	personally known to be the same and being by me du strument is the Corporate trument by the authority at c.	he individuals and office tly swom, deposed and s Seal of raid Company, and direction of said Com	rs describ aid that th and the st coration, a
On this 27th da Ellis and Glenn L terein, and who execute the officers of sa Corporate Seal and si hat the resolution of	ay of August, 2001.  D. Southwick of the uted the preceding id Company afore ignatures as office said Company, ref	ne Evergreen National Indexn is instrument and acknowledge said, and that the seal affixe is were duly affixed and sub- ferred to in the preceding inso	mity Company, to me ed the execution of the ed to the preceding in scribed to the said ins nument, is now in force	personally known to be the same and being by me dustrument is the Corporate trument by the authority at c.  seal at Columbus, Ohio, the	he individuals and office ally sworn, deposed and s Seal of raid Company, and direction of said Comp e day and year above wri	rs describ aid that th and the st coration, a
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On this 27th da Ellis and Glenn I. erein, and who exec re the officery of sa corporate Seal and si nat the resolution of IN TESTIMON	ny of August, 2001.  D. Southwick of the uted the preceding id Company afore ignatures as office said Company, refur WHEREOP, It	ne Evergreen National Indexn is instrument and acknowledge said, and that the seal affixe is were duly affixed and sub- ferred to in the preceding inso	nity Company, to me ed the execution of the ed to the preceding in scribed to the said ins rument, is now in force and affixed my official  Nota	personally known to be the same and being by me dustrument is the Corporate trument by the authority at c. seal at Columbus, Ohio, the arrange of the Columbus, Ohio, the columbus of the Colu	ne individuals and office ally sworn, deposed and s Seal of said Company, and direction of said Comp e day and year above wri	rs describ aid that th and the sa coration, a
On this 27th da P. Ellis and Glenn I. Berein, and who execute the officers of sa Corporate Seal and si hat the resolution of IN TESTIMON  SEE WITH COMMENTAL BY C	by of August, 2001.  D. Southwick of the uted the preceding id Company afore ignatures as office said Company, reference with the company of	ne Evergreen National Indems; instrument and acknowledges and, and that the seal affixed as were duly affixed and subferted to in the preceding insubave hereunto set my hand an have hereunto set my hand and the Evergreen National Indems, in full force and has not be	nity Company, to me ed the execution of the ed to the preceding in scribed to the said ins rument, is now in force and affixed my official  Nota My (  nity Company, a stuck con revoked; and furt	personally known to be the same and being by me dustrument is the Corporate trument by the authority at c. seal at Columbus, Ohio, the cry Public State of Ohio Commission expires August Corporation of the State of	ne individuals and office ally sworn, deposed and s Seal of said Company, and direction of said Company e day and year above write 6, 2004  f Obio, DO HEREBY CI	rs describ aid that th and the sa oration, a tten.
P. Ellis and Glenn I.  therein, and who execute the officers of sa Corporate Seal and si that the resolution of IN TESTIMON  State of Ohio )  I, the undersign the foregoing Power therein above, is now therein above, is now	by of August, 2001.  D. Southwick of the uted the preceding id Company afore ignatures as office said Company, ref YY WHEREOP, I is seen as a cutton of Attorney remain force.	ne Evergreen National Indems; instrument and acknowledges and, and that the seal affixed as were duly affixed and subferted to in the preceding insubave hereunto set my hand an have hereunto set my hand and the Evergreen National Indems, in full force and has not be	nity Company, to me ed the execution of the ed to the preceding in scribed to the said ins rument, is now in force and affixed my official  Nota My (  nity Company, a stuck con revoked; and furt	personally known to be the same and being by me dustrument is the Corporate trument by the authority at c. seal at Columbus, Ohio, the cry Public State of Ohio Commission expires August Corporation of the State of	ne individuals and office ally sworn, deposed and s Seal of said Company, and direction of said Company e day and year above write 6, 2004  f Obio, DO HEREBY CI	rs describ aid that th and the sa oration, a tten.

Surety: Evergreen National Indemnity Company

By Antelestedil

Nicole Skedel, Attorney-In-Fact

#### DECREASE RIDER TO SURETY BOND

PURPOSE: DECREASE

To be attached to Bond Number <u>850410</u> issued by <u>Evergreen National Indemnity</u>

<u>Company</u>, as Surety in the amount of <u>Three Million Nine Hundred Eighty Nine Thousand Nine</u>

<u>Hundred Seventy Three and 00/100 Dollars (\$3,989,973.00)</u> effective the 4<sup>th</sup> day of March 2003, on behalf of <u>BFI Waste Systems of Arkansas, LLC</u>, in favor of the <u>State of Arkansas Department</u> of Environmental Quality.

In consideration of the premium charged for the attached bond, it is mutually understood and agreed by the Principal and the Surety that the bond shall be modified to read as follows:

The above said bond amount shall be One Million Two Hundred Six Thousand Two

Hundred and 00/100 Dollars (Closure: \$1,206,200.00), effective the 11th day of

June 2003.

All other items, limitations and conditions of said bond except as herein expressly modified shall remain unchanged.



June 19, 2003

Mr. James E. Fleming
Environmental Manager
BFI Waste Systems of North America
7111 Old Millington Road
P.O. Box 1207
Millington, TN 38053

RE: Release of Certificate of Insurance – Policy No. PEC002366 Financial Assurance for Closure/Post Closure Care BFI Modelfill Landfill – Permit No. 151-S1-R3

Dear Mr. Fleming:

With the receipt of a Surety Bond (No. 850411) from Evergreen National Indemnity Company to satisfy closure and post closure care for the aforementioned facility, this letter releases the Certificate of Inusurance, Policy No. PEC000236. The policy is enclosed.

Should you have any questions, please call me at (501)-682-0589.

Sincerely,

Susan Speake

Programs Branch Manager

Solid Waste Management Division

cc: Geof Little, Technical Assistance Manager, Solid Waste Management Division

Enclosure



August 6, 2003

Mr. James E. Fleming Environmental Manager BFI Waste Systems of Arkansas, LLC 3817 Mabelvale Pike Little Rock, Arkansas 72204

RE: Request for approval of revised Financial Assurance Cost Estimate BFI Modelfill Landfill AFIN 60-00565 Permit No. 151-S1-R4 Document ID No. # 20838

Dear Mr. Fleming:

ADEQ Solid Waste Management Division staff has reviewed BFI Waste Systems of Arkansas, LLC., request to reduce required financial assurance for the above stated facility, since requirements to complete Permit Condition #33 have been fulfilled. The estimates provided by the facility for closure and post closure cost activities appear to be reasonable and consistent with a facility of this type and magnitude. Therefore, the Department authorizes the reduction in financial assurance to the amounts for Closure and Post Closure to 1,200,200.00 dollars and 2,877,117.00 dollars respectively. From here forward the Closure and Post Closure Cost Estimates should be updated yearly in the required Annual Engineering Inspection Report.

This authorization is being given in reliance upon the statements and representations made to the Department. The Department also reserves the right to request additional information if it is deemed necessary. This approval shall not remove any liability nor hold BFI Waste Systems of Arkansas, LLC harmless in the event of any adverse conditions resulting from improper closure or post closure cost estimates for the facility. BFI Waste Systems of Arkansas, LLC shall be solely and fully responsible for any corrective action necessary to remediate any adverse condition resulting from improper closure or post closure cost estimates.

Please call me at (501) 682-0597 should you have any questions regarding the above information. Sincerely,

Seneca Jacobs Permit Engineer

c: Steve Martin, Chief

Ken Burks, District Field Inspector Susan Speake, Programs Branch Manager

# BFI Model Fill Landfill As Permitted Permit No 0151-S1-R4 COST ESTIMATE (Based on 3rd Party Cost) WORKSHEET A CLOSURE ACTIVITIES - (20 Acres)

0-	4	/A FA	Classes Bataila	Mahaa	
	tegory	(Acre - Feet)	Closure Details	Values	
Footprint 425 Top Deck 268			Closed Acreage	20	
		268	Percent Side Slope	37%	
Sideslope 157		157	Bench/Slope Area (feet/acre)	197.5	
rre	cted (5%)	165	Gas Wells (#/acre)	1.0	
	ace Area	433			
	Benches	31,000	-		_
otai	Delicites	01,000		-	
				-	-
_			Unit Cost/Quantity	Cost	
-	Catablia bi	5-6-1	Onit Cost/Quantity	COSL	
1	Establishi	ng final cap:			
_19					
_	A.	Soil Support Vegetative Growth			
		Quantity needed (yd3) (thickness (in.))	18	48,400	
		Excavation unit cost (\$/yd3)	\$1.00	\$1.00	
	3	Excavation cost (1. x 2.)		\$48,400	
	4	Placement and spreading unit cost (\$/yd3)	\$1.00	\$1.00	
	5	Placement cost (1. x 4.)		\$48,400	-
	*Subtotal	Cost of soil that supports vegetative growth		\$96,800	
	Odololai,	555. 51 doi: triat supports vogotativo growth		\$00,000	
	В.	Landfill cap			
		On-site Clay (assume portion of IC used)	6		6" intermediate
	-	Oughtity pooded (vd2) (thickness (= ))	24	40.400	o intermediat
		a.Quantity needed (yd3) (thickness (in.))		48,400	
		b.Excavation unit cost (\$/yd3)	\$1.00	\$1.00	
		c.Excavation cost (a. x b.)	1.5	\$48,400	
		d.Placement/spreading unit cost (\$/yd3)	\$1.50	\$1.50	
		e.Placement Cost (a. x d.)		\$72,600	
		f.Mobe/Demobe to establish final cap		\$0	
	*Subtotal:	Cost of on-site clay		\$121,000	
	2	Off-site clay			
-	-	a.Quantity needed (inches & yd3)	0	0	
		b.Purchase unit cost (\$/yd3)	\$3.00	\$3.00	
-		c.Purchase cost (a. x b.)	\$3.00		
-			04.00	\$0	
		d.Delivery unit cost (s/yd3)	\$4.00	\$4.00	
		e.Delivery cost (a. x d.)	11/12	\$0	
		f.Placement/spreading unit cost (\$/yd3)	\$2.00	\$2.00	
		g.Placement cost (a. x f.)		\$0	
	*Subtotal:	Cost of off-site clay		\$0	
	3	Quality control/testing of clay			
		a.Clay testing unit cost (\$/acre)	\$150	\$150	
		b.Testing cost (a. x # acres)	7,00	\$3,000	
		c.Mobilization/Demoblization		\$0	
-	*Subtotal	Cost of clay monitoring and testing		\$3,000	
	Subtotal	Cost of clay morntoring and testing		Ψ5,000	
	C.	Synthetic membrane			
			100%	100%	
_		Material Contingency Factor	-		
	2		1	549,368	
	3		\$0.300	\$0.300	
	4			\$164,811	
		Textured LLDPE (ft^2) SLOPE	1	321,832	
		Purchase/Installation Cost SF	\$0.300	\$0.300	
		Purchse Cost - textured (5. x 6.)		\$96,549	1
	8	GCL (ft^2) (TOP + SLOPE)	0	0	
		Purchase/Installation Cost SF	\$0.327	\$0.327	
		Purchase Cost - GCL (8. x 9.)	77.021	\$0	-
-		Mobilization/Demobilization Cost		\$0	
		Taxes (tax on materials only)		\$0	
		Cost Mobilization/Demo & Taxes (11. + 12.)		\$0	
	Subtotal	Cost of synthetic membrane		\$261,360	-

D.	Geotextile Fabric/Geocompostie			1
	Material Contingency Factor	110%	110%	
2	Geotextile - 8 oz			
	Top (ft^2)		871,200	
4	Slope (ft^2)	0	0	
5	Purchase/Installation unit cost (\$/ft^2)	\$0.450	\$0.450	
	Purchase cost ((3.+ 4.) x 5.)		\$392,040	-
7			V002-10-10	
	Top (ft^2)	ol	0	
	Slope (ft^2)	0	0	
10	Purchase/Installation unit cost (\$/ft^2)	\$0.110	\$0.110	
11	Purchase cost ((8.+ 9.) x 10.)	90.110	\$0	
	Double Sided Geocomposite		- 00	
	Top (ft^2)		0	
14	Slope (ft^2)		0	
15	Purchase/Installation unit cost (\$/ft^2)		\$0.000	
	Purchase cost ((13.+ 14.) x 15.)			-
10	Taxes (material cost only)		\$0	
			\$0	
-Subtotal.	Cost of geocomposite/geotextile filter		\$392,040	
CLIDTOTA	L AL: Cost for establishing final cover (*): (A.+B1.+B2.+B	22 + C + D)	\$874,200	
SUBTOTA	AL: Cost for establishing final cover (*): (A.+B1.+B2.+B	33.+C.+D.)	2074,200	
2 Establishi	ng Vegetative Cover			
	Labor (\$/acre)	\$0	\$0	
	Seeding/Mulching (\$/acre)	\$200		
2	Fertilizing (\$/acre)	\$1,000	\$4,000	
		\$1,000	\$20,000	
	Mobilization/Demobilization		504 000	
SOBIOIA	AL: Cost for establishing vegetative cover		\$24,000	
	ng/Completing Erosion/Sediment Control  Benches /linear ft/acre(ss) & linear feet))	541.4	4.600	
1	Benches (linear ft/acre(ss) & linear feet))	541.4	4,000	
1 2	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF)	541.4 \$1.00	\$1.00	
1 2 3	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench		\$1.00 \$4,000	
1 2 3 4	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft)		\$1.00	
1 2 3 4 4 5	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/ LF)		\$1.00 \$4,000 0	
1 2 3 4 5	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/ LF) Purchase Cost - Downshoot	\$1.00	\$1.00 \$4,000 0	
1 2 3 4 5 6	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/ LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft)	\$1.00	\$1.00 \$4,000 0 \$0 4,000	
1 2 3 4 5 6 7	Benches (linear ft/acre(ss) & linear feet))  Bench Unit Cost (\$/ LF)  Purchase Cost - Bench  Downchutes (%Terrace & linear ft)  Downshoot Unit Cost (\$/ LF)  Purchase Cost - Downshoot  Silt Fence (% Benches & linear ft)  Silt Fence Unit Cost Installed (\$/ LF)	\$1.00	\$1.00 \$4,000 0 \$0 4,000 \$1.00	
1 2 3 4 5 6 7 8 9	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/ LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/ LF) Purchase Cost - Silt Fence	\$1.00	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000	
1 2 3 4 5 6 7 8 9	Benches (linear ft/acre(ss) & linear feet))  Bench Unit Cost (\$/ LF)  Purchase Cost - Bench  Downchutes (%Terrace & linear ft)  Downshoot Unit Cost (\$/ LF)  Purchase Cost - Downshoot  Silt Fence (% Benches & linear ft)  Silt Fence Unit Cost Installed (\$/ LF)	\$1.00	\$1.00 \$4,000 0 \$0 4,000 \$1.00	
1 2 3 4 4 5 6 6 7 8 9 SUBTOTA	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/ LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/ LF) Purchase Cost - Silt Fence	\$1.00	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000	
1 2 3 4 4 5 6 7 8 9 SUBTOTA	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/ LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/ LF) Purchase Cost - Silt Fence AL: Cost for establishing eroision/sediment control	\$1.00	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000	
1 2 3 4 4 5 6 6 7 8 9 SUBTOTA	Benches (linear ft/acre(ss) & linear feet))  Bench Unit Cost (\$/ LF)  Purchase Cost - Bench  Downchutes (%Terrace & linear ft)  Downshoot Unit Cost (\$/ LF)  Purchase Cost - Downshoot  Silt Fence (% Benches & linear ft)  Silt Fence Unit Cost Installed (\$/ LF)  Purchase Cost - Silt Fence  AL: Cost for establishing eroision/sediment control  Ing/Completing Gas Control  Mobilization/Demobilization	\$1.00 100% \$1.00	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000	
1 2 3 4 4 5 6 6 7 8 9 SUBTOTA 4 Establishi 1 2	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/ LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/ LF) Purchase Cost - Silt Fence AL: Cost for establishing eroision/sediment control  Ing/Completing Gas Control Mobilization/Demobilization Gas Wells Depth (ft per well & total)	\$1.00 100% \$1.00	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000	
1 2 3 3 4 4 5 6 6 7 8 9 SUBTOTA 4 Establishi 1 2 3 3	Benches (linear ft/acre(ss) & linear feet))  Bench Unit Cost (\$/ LF)  Purchase Cost - Bench  Downchutes (%Terrace & linear ft)  Downshoot Unit Cost (\$/ LF)  Purchase Cost - Downshoot  Silt Fence (% Benches & linear ft)  Silt Fence Unit Cost Installed (\$/ LF)  Purchase Cost - Silt Fence  AL: Cost for establishing eroision/sediment control  Ing/Completing Gas Control  Mobilization/Demobilization  Gas Wells Depth (ft per well & total)  Drilling/Installation (\$/ LF)	\$1.00 100% \$1.00	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000 \$0.00 2,000 \$53	
1 2 3 4 4 5 6 6 7 7 8 9 SUBTOTA 4 Establishi 1 2 3 3 4 4	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/LF) Purchase Cost - Bench Downshoot Unit Cost (\$/LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/LF) Purchase Cost - Silt Fence AL: Cost for establishing eroision/sediment control  Ing/Completing Gas Control  Mobilization/Demobilization Gas Wells Depth (ft per well & total) Drilling/Installation (\$/LF) Cost - Drilling/Installation	\$1.00 100% \$1.00 100 \$53	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000 \$53 \$106,000	
1 2 3 4 4 5 6 6 7 8 9 SUBTOTA  4 Establishi 1 2 2 3 4 4 5 5	Benches (linear ft/acre(ss) & linear feet))  Bench Unit Cost (\$/ LF)  Purchase Cost - Bench  Downshoot Unit Cost (\$/ LF)  Purchase Cost - Downshoot  Silt Fence (% Benches & linear ft)  Silt Fence Unit Cost Installed (\$/ LF)  Purchase Cost - Silt Fence  AL: Cost for establishing eroision/sediment control  Ing/Completing Gas Control  Mobilization/Demobilization  Gas Wells Depth (ft per well & total)  Drilling/Installation  Header (LF/well & total LF)	\$1.00 100% \$1.00 100 \$53	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000 \$53 \$106,000 1,000	Header in place
1 2 3 4 4 5 5 6 6 7 7 8 8 9 SUBTOTA 4 Establishi 1 2 3 3 4 4 5 5 6 6	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/LF) Purchase Cost - Silt Fence AL: Cost for establishing eroision/sediment control  Mobilization/Demobilization Gas Wells Depth (ft per well & total) Drilling/Installation Header (LF/well & total LF) Installation Cost - Header (\$/LF)	\$1.00 100% \$1.00 100 \$53	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000 \$53 \$106,000 1,000 \$35	Header in place
1 2 3 4 4 5 5 6 6 7 7 8 8 9 SUBTOTA 4 Establishi 1 2 3 3 4 4 5 5 6 6 7 7	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/LF) Purchase Cost - Silt Fence AL: Cost for establishing eroision/sediment control  Mobilization/Demobilization Gas Wells Depth (ft per well & total) Drilling/Installation (\$/LF) Cost - Drilling/Installation Header (LF/well & total LF) Installation Cost - Header (\$/LF) Cost Installation - Header	\$1.00 100% \$1.00 100 \$53 50 \$35	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000 \$0.00 2,000 \$106,000 1,000 \$35 \$35,000	Header in place
1 2 3 4 5 6 6 7 8 6 6 7 8 6 6 7 8	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/LF) Purchase Cost - Bench Downchutes (%Terrace & linear ft) Downshoot Unit Cost (\$/LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/LF) Purchase Cost - Silt Fence AL: Cost for establishing eroision/sediment control  Ing/Completing Gas Control  Mobilization/Demobilization Gas Wells Depth (ft per well & total) Drilling/Installation (\$/LF) Cost - Drilling/Installation Header (LF/well & total LF) Installation Cost - Header Laterals (LF/well & total LF)	\$1.00 100% \$1.00 100 \$53 50 \$35 200	\$1.00 \$4,000 0 \$0 4,000 \$1.00 \$4,000 \$8,000 \$0.00 2,000 \$106,000 1,000 4,000 4,000	Header in place
1 2 3 4 5 6 6 7 7 8 6 7 7 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9	Benches (linear ft/acre(ss) & linear feet)) Bench Unit Cost (\$/ LF) Purchase Cost - Bench Downchutes (% Terrace & linear ft) Downshoot Unit Cost (\$/ LF) Purchase Cost - Downshoot Silt Fence (% Benches & linear ft) Silt Fence Unit Cost Installed (\$/ LF) Purchase Cost - Silt Fence AL: Cost for establishing eroision/sediment control  Mobilization/Demobilization Gas Wells Depth (ft per well & total) Drilling/Installation (\$/ LF) Cost - Drilling/Installation Header (LF/well & total LF) Installation Cost - Header Laterals (LF/well & total LF) Installation Cost Laterals LF	\$1.00 100% \$1.00 100 \$53 50 \$35	\$1.00 \$4,000 0 30 4,000 \$1.00 \$4,000 \$8,000 2,000 \$53 \$106,000 1,000 \$35,000 4,000 \$25	Header in place
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1 SUBTOTAL: Cost for establishing final cover (*):	(A +B1 +B2 +B3 +C +D)	\$874,200	
2 SUBTOTAL: Cost for establishing vegetative cov	vor.	\$24,000	
3 SUBTOTAL: Cost for establishing eroision/sedim	ent control	\$8,000	
4 SUBTOTAL: Cost for establishing gas control		\$300,000	
	TOTAL (\$)	\$1,206,200	
	TOTAL (\$/acre)	\$60,310	
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Model Fill Landfill PHASE I 64 Acres Closed COST ESTIMATE WORKSHEET B: POST CLOSURE ACTIVIT (1st Year Only Cost)	IES
Total Acres Closed Phase I	64
1 Surveying inspections to confirm final grade at closure and drainage are in	maintained:
A.Flyover/Survey Final Grades to Permitted Final Elevations	\$ -
TOTAL Certification Final Elevations:	\$ -
2 Maintain healthy vegetation (\$100.00/Acre)	
A.Seeding/Fertilizing B.Mowing	\$ 50.00 \$ 50.00
TOTAL for Maintaining healthy vegetation: (A + B)	\$ 6,400.00
A.Transportation (\$100/acre)  OTAL for maintaining drainage : (A+ B + C +D)	\$ 100.00 \$ 6,400.00
4 Maintain and monitor the leachate collection, removal and treatment system	em:
A.Treatment of Leachate  1. On-site  a. Quantity (gal./yr)  b. Treatment unit cost (gal.)  c. Treatment costs (a x b)  d. Sewer discharge unit cost	
e. Discharge cost (a x d) Total 1 On-Site (c. + e.)	
2. Off-site a.Quantity (gallons/AC/YR@4.8gal/AC/day) b. Acres Closed	
c.Total Gallons b. Disposal cost e. Disposal cost (a. x d.)	· ·

B.Main	tenance of leachate collection system (\$100/acre)			
	1. Total Acres		64.00	
	2.Maintenance Cost/Acre	\$	100.00	
Total 3	(1°2)	\$	6,400.00	
TOTAL	for Monitoring and maintaining leachate system (*): (1+2+3)	S	6,400.00	-
		9	0,0000	
5 Maintai	n and monitor the gas collection or venting system:			
A. Tota	I Acres	V 44/850	64.00	
	3. Cost/Acre	\$	200.00	
TOTAL	Cost Maintenance of Gas System	\$	12,800.00	
6 Maintai	in and monitor the groundwater and/or surface water monitoring system:			
A. Trea	Itment of groundwater systems:		49	
	1 Number of wells/springs		12	
	2 Number of samples/well		4 000 00	
	3 Unit cost of analysis	\$	1,000.00	
	4 Cost of sampling + analysis (1x2x3)			
	5 Labor costs per well			
	6 Labor Costs (1x5)			
* TOTA	L A: (4+6)	\$	24,000.00	
Inspect	ion and maintenance of systems:			
	1 Transportation	\$	500.00	
	2 Labor			
	3 Repairs/Materials (\$500.00/Well)	\$	6,000.00	
	a. Caps			
	b. Tubing			
	c. Pumps			
	d. Well replacement			
	e. Other (locks, etc.)			
Total 3	: (a+b+c+d+e)			
	L B: (1+2+3)	\$	6,000.00	
TOTAL	for maintaining and monitoring groundwater systems (*): (A+B)			
OTAL POST	CLOSURE COSTS:			
Annua	I Basis (1st Year Only):	\$	62,000.00	
	of Sections 1 through 6)			
OTES:				
	ing is a one-time cost shown in year one. Certification of closure will be com	pleted in 60 d	ays following compl	eted closur
	or maintaining health vegetation and drainage reduced to \$20/Acre year six.	Healthy veget	ation established th	us
reducir	ng cost maintaining healthy vegetation.		1-	
3 Phase	I Closed			

POST	Model Fill Landfill Phase II and III COST ESTIMATE WORKSHEET B: CLOSURE ACTIVITIES st Year Only Cost)			
Total Acres Phases II and III			52	
1 Surveying inspections to confirm final grade at closure	e and drainage are maintair	ned:		
A.Flyover/Survey Final Grades to Permitted Final Ele	vetions		\$5,000.00	
	Valions			
TOTAL Certification Final Elevations:			\$5,000.00	
2 Maintain healthy vegetation (\$100.00/Acre)				
A.Seeding/Fertilizing		S	50.00	
B.Mowing		\$	50.00	
TOTAL for Maintaining healthy vegetation:				
(A + B)		\$	5,200.00	
Maintain the drainage facilities, sediment ponds and d     A.Transportation (\$100/acre)  TOTAL for maintaining drainage :		\$	100.00 5,200.00	
4 Maintain and monitor the leachate collection, remova	and treatment system:			
A.Treatment of Leachate				
1. On-site				
a.Quantity (gallons/AC/day)				
b. Active Areas Not Closed				
c.Total Gallons		-		
d. Disposal cost e. Disposal cost (a. x d.)	-			
e. Disposal cost (a. x c.)				
2. Off-site				
a.Quantity (gallons/AC/YR@4.8gal/AC/day	0	1 - 0 -	- 187EK	
b. Active Areas Not Closed				
c.Total Gallons				
d. Disposal cost				
e. Disposal cost (c*d)		\$		
B.Maintenance of leachate collection system (\$100/a	ucre)			
1. Total Acres			52.00	
2.Maintenance Cost/Acre		\$	100.00	
		\$	5,200.00	
TOTAL for Monitoring and maintaining leachate syste	om (*\· (1+2+3)	\$	5,200.00	
TOTAL for Monitoring and maintaining leadnate syste	3111 ( ). (1+2+3)	Ψ	3,200.00	

5 Maintain and monitor the gas collection or venting system:	
A. Total Acres	52,00
3. Cost/Acre	\$ 200.00
TOTAL Cost Maintenance of Gas System	\$ 10,400.00
6 Maintain and monitor the groundwater and/or surface water monitoring sy	vstem:
A. Treatment of groundwater systems:	
1 Number of wells/springs	
2 Number of samples/well	
3 Unit cost of Sampling/Well	
4 Cost of sampling	
5 Cost of Analysis	- was the little with the same of the same
6 Cost/Year	\$
7 Statistical Analysis/Report	
Cost Sampling and Analysis	\$
Inspection and maintenance of systems:	
1 No of Groundwater Monitoring Wells	
2 Maintenance/Well	
3 Inspection and Maintenance of System/year	\$
TOTAL for maintaining and monitoring groundwater systems (*): (A+B)	\$ -
TOTAL POST CLOSURE COSTS Phase II Sectors I,2&3:	\$ 31,000.00
Groundwater Sampling will continue until 30 year Post Closure completed for an	tire site.
Total Closure Cost	\$1,206,200
Inflation Factor 2.1%	\$1,231,530
30 Year Post Closure Care Phase I	\$ 1,732,000.00
30 Year Post Closure Care Phase II and III	\$ 701,000.00
otal Post Closure Cost	\$ 2.433,000.00

	20 % Tota Inflation F	l Post Closure Cost actor 2.1%	\$486,600.00 <b>\$496,818.60</b>	
	Total Clos	ure Post Closure Cost	 \$1,728,348.91	
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# **APPENDIX F**

# Minor Permit Modification Application

2004 Annual Engineering Inspection Report BFI Model Fill Sanitary Landfill Permit # 151-S1-R4 March 2005



# DEPARTMENT OF ENVIRONMENTAL QUALITY Solid Waste Management Division



# PERMIT MODIFICATION APPLICATION

Note: This modification application is to be used for all modifications to solid waste disposal and processing facilities. The Department will classify this modification as major or minor in accordance with the provisions of Section 22.308 of Regulation 22. Major modifications will be subject to the provisions of Regulation 8.

	1. FACILITY	TYPE		
X Class 1 Landfill	Class 3N Landfill	Class 3C	Landfill	
Class 3T Landfill	Class 4 Landfill	Transfer S	Station	
Composting Facility	Solid Waste Mater	ial Recovery Facility		
Ι	L FACILITY IDEN	TIFICATION		
Facility Name: BFI Model F	ill LandfillPe	rmit Number: 151-S1	-R4 CSN: 60-0565	
Address: 3817 Mabelvale F	Pike, Little Rock, Arkansas	72204		
City: Little Rock		State: Arkansas	Zip: 72204	
County: Pulaski	Telephone Nu	mber: (501) 562-0070	Fax: (501) 568-4849	
	III. APPLIC (Must be permit			
Facility Name: BFI Waste Systems of Arkansas, LLC				
Address: 3817 Mabelvale F	ike			
City: Little Rock		State: Arkansas	Zip: <u>72204</u>	
Contact Person:Johann Li	nker	Phone No.:_(501)	562-0070	

### PERMIT HISTORY

(Complete for each permit and modification to date)

	Number	Date Issued
Permit Number:	151-S1-R1	November 21, 1980
Modification #1:	151-S1-R2	March 8, 1991
Modification #2-	151-S1-R3	June 6, 1997
Modification #3:	151-S1-R4	June 2, 2003
Modification #4:	151-S1-R4	February 6, 2004

## MODIFICATION DESCRIPTION

(Complete each part below as it applies to this modification - if an item doesn't apply, mark it "N/A")

# CHANGE IN PERMITTED CAPACITY (Specify whether yards or tons) Original Cubic Yards 7,324,900 (This includes the volume of solid waste and any daily or intermediate soil cover) Modified Cubic Yards No Change Cubic Yards Increase (Decrease) No Change SITE LIFE & SERVICE AREA Current Service Area Little Rock and Surrounding Area Current Tons per year through the gate 360,000 (tons/ year) Current Landfill Utilization Rate 600,000 (cu. yards/ year) Estimated remaining site life (after this modification) 2 years

CHANGE IN PERMITTED DISPOSAL ACREAGE

Original Site Acres 116.4

Modified Site Acres No Change

Site Acres Increase (Decrease) No Change

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CHANGE IN OPERATING PROC	CEDURES (Provide brief description of each proposed modification)
No change in Operational plans f	or the Landfill.
CHANGE IN FACILITY DESIG	N (Provide brief description of each proposed modification)
Redesign the final cover system	
	,
REASON FOR MODIFICA	TION (Check one or specify below)
Change in Regulation	
Additional Site Life	
T 01: 0 :	X
Improve Site Operations	
Correct Past Violation	
other (Specify)	

# DRAWING REVISIONS

(Identify below each drawing that was revised or added as a result of this modification. Each revised or added drawing, should be included as an attachment to this application.)

Drawing Numb	per Title	Date	Revision #
1	Permitted Bottom Grades 10/7/96	10/22/04	
2	Permitted Final Grades 10/7/96	10/22/04	
3	Permitted Bottom Grading Plan	10/22/04	
4	Proposed Final Contours 10/20/04	10/22/04	
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	OPERATING NARRATIVE R	EVISIONS	
narrative pages	v each change to the operating narrative as a should be included as an attachment to this app d be indicated by strikeout, additions should be	olication. Deletions	ification. Revised from the previous
Page #	Change Description		
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# SUPPLEMENTAL DATA SUBMITTED

(Any report, study, data, information, etc. that was not part of previous permit documents should be identified below. In addition, any data identified below should be included as an attachment to this application.

Description

SIGNATURE AN	D CERTIFICATION
	rized representative of the applicant as well as the gning below, the representatives certify that all the it truthful.)
APPLICANT	Dale Stevener
Signature	Typed Name
ŭ	· ulalas
General Manager Title	Date
ENGINEER/CONSULTANT	
My RMS	Phillip K. Fields, P E , P G.
Signature	Typed Name
Project Engineer	11/03/04
Title	Date
Engineering Consultant: Genesis Environmenta	Consulting, Inc.
	r public inspection, provided, however, that the Department shall not the Director determines is entitled bylaw to protection as trade secrets

without the consent of the applicant. Trade secrets shall not include the name and address of the applicant, nor any information necessary, as determined by the Director, for the public to evaluate the hazards associated with the proposed operation, nor any other

Permit Modification Form Form.05APPLM.WPD Page 5

information required by law to be available to the public.

# **APPENDIX G**

# Volume Calculations Demonstration

2004 Annual Engineering Inspection Report BFI Model Fill Sanitary Landfill Permit # 151-S1-R4 March 2005 17774 Cypress Rosehill, #1800 \* Cypress, TX. 77429 \* Email: jg.bdsi@sbcglobal.net \* Office: 281-516-1794 \* Efax: 509-278-5674

TO: Phillip Fields – Project Manager for Modelfill LF

Genesis Environmental Consulting / Terracon

FROM: Marvin Reinartz

**Bullseye Design Services, Inc. (BDSI)** 

**DATE:** June 7, 2005

SUBJ: Overview of Landfill Volume Analysis – Process and Procedure

BDSI uses Microstation by Bentley for CAD applications, enhanced with an Interactive Graphic Design System (IGDS), for three dimensional full scale modeling. Within the CAD environment, we use InXpress for our digital terrain modeling (DTM) tool. The DTM is a simple name for a complex grid of points (xyz') representing either topography or design data. Once processed and verified these DTM grids can be used to generate profiles, cross-sections, isopachs and user defined volume analysis. The following is a summary of typical procedures utilized to establish a baseline and monitor landfill operations metrics, unique to each site.

Annually each site is required to place large targets, at surveyed xyz' on the ground to serve as ground control for aerial photo / mapping. The aircraft with specialized camera equipment will require clear weather for multiple shots at two different altitudes. Commonly developed on a State Plane coordinate system, a digitized topographic map with planimetrics is produced using modern photogrametric techniques. Typically, the degree of accuracy is +/- one foot vertically for maps with two foot contour intervals. Upon completion of the site mapping (by others), the digitized maps /CAD files and photos are emailed to us. We will backup and store all electronic data to serve as an additional resource over time. Currently, BDSI has digital topographic and design data for over a hundred active and closed sites dating back to 1980's.

When BDSI receives topographic data, hardcopies will be prepared and sent as a "site review" along with correspondence eliciting participation in the analytical process. Landfill personnel can respond by phone or simply markup the topographic drawing with current operations details. We will use this input to help address the variables of gate tons, "as-built" data, stockpiles / borrows, completed areas and remaining volume of active area. Ideally the site review input occurs on the front end of the process but comments can be incorporated even after the package is completed. The open nature of the process insures an added measure of quality control while validating the audits conclusions. Exchanging data and viewpoints promotes fidelity and understanding of the landfill analysis package.

The process of comparing two DTM's will provide an opportunity to view / measure the difference between them. Graphic displays of the detailed digital comparisons are known as isopach's. When processed and printed a uniform set of red or green contours will indicate either cut or fill activity on your site. Isopach's will be generated for each of four different types of comparative volume assessments. Gross remaining above and below grade airspace. volume consumed between annual flyovers and the effective constructed remaining airspace. These four components of the analysis will be the core of the package, annotated and printed at scale in an 11x17 format. Previous and current year topography, permitted base and final grade designs, projected remaining plans and pertinent cross-sections will accompany the package using same format. Each drawing will help to illustrate or validate an aspect of the analysis that can be engaged at any point during reviews. Extrapolation methods may be used to estimate remaining liner or final cover based on acreage. Limited portions of the analysis package are the result of such linear math. Complex landfill volume calculations are the domain of DTM's. Using an isopach as the guide, cut / fill areas are defined by shapes to limit the area of volume analysis. These different areas of analysis are then compiled and reported as consumed volume, remaining airspace or excavation quantities. All the efforts of the process are condensed into a detailed spreadsheet of specific values addressing every aspect of landfill operations. Given the known tons received at the gate between flyovers BDSI will include a site life and density worksheet. Various site life related calculations including; inplace density, average monthly gate & landfill yards consumed and remaining active / total site life projections are extrapolated. Comparing these values on an annual basis, over time, will increase awareness and efficiency of operators.

Once DTM volume analysis is completed using computer applications, a final assessment will be influenced by site review input or previous site knowledge. For example, when a portion of the landfill is certified closed there is no remaining airspace even if detected by the isopach. Generally, any unobtainable or compromised portion of the landfill design will be considered completed / closed with no remaining airspace reported for that area. BDSI recognizes the difference between available and useable remaining airspace, reporting the latter to maintain a conservative bias. Our collective years of experience, insures continuity and confidence in the annual airspace process. The landfill operations metrics derived through the analytical processes of DTM's are powerful tools. Using the insight provided by our reports over time will serve to leverage operators within their respective marketplaces.

If there are any questions, I can be reached at any of the numbers above. For immediate assistance I can be reached on my Cell: (281) 805-4769. We appreciate your business and look forward to working with you in the future.

MJR/jg

Cc:

