

Haley Griffith (adpce.ad)

Subject: RE: Green Bay Packaging 2024 Annual Engineering Inspection Report (AEIR) - Permit No. 0284-S3N; AFIN: 15-00001

From: Jonathan King <jking@promusengineering.com>

Sent: Friday, June 27, 2025 9:57 AM

To: Richard Bennett (adpce.ad) <richard.bennett@arkansas.gov>

Cc: Brad Fureigh <bfureigh@promusengineering.com>; Wesson, Jacob <jwesson@gbp.com>

Subject: Green Bay Packaging 2024 Annual Engineering Inspection Report (AEIR) - Permit No. 0284-S3N; AFIN: 15-00001

Mr. Bennett,

See attached the 2024 Annual Engineering Inspection Report (AEIR) for the Green Bay Packaging Class 3N Landfill. Please let me know if you have any questions or comments.

The financial assurance mechanism will be submitted under separate cover.

Thanks!

Jonathan B. King, P.E.

Project Engineer | Promus Engineering, LLC

M: (501) 398-7785

jking@promusengineering.com

www.promusengineering.com

2024 ANNUAL ENGINEERING INSPECTION REPORT

Green Bay Packaging – Arkansas Kraft Class 3N Landfill Morriton, Arkansas

Permit No. 0284-S3N
AFIN: 15-00001

June 27, 2025
Promus Project No. 250094

Prepared for:
Green Bay Packaging Inc. – Arkansas Kraft Division

Prepared by:



ANNUAL ENGINEERING INSPECTION REPORT (AEIR) FORM

Reporting Year: 2024

Note: Check applicable landfill class. Class 1 (Reg 22.423(b)) , Class 3 (22.522(a)) X, Class 4 (22.619(b))

Facility Name: Green Bay Packaging – Arkansas Kraft Division AFIN: 15-00001 Permit #: 0284-S3N Landfill Class: 3N

Report Submittal Date: June 27, 2025 Date of Landfill Site Inspection by Certifying Engineer: June 10, 2025

***Complete the form as indicated
Instructions are bolded and italicized.***

COLUMN TO BE COMPLETED BY REPORTER

Item	Regulation Reference	Item Description	Report Information/Comments/Remarks	Attachment Reference
1	22.423(b)(1) 22.522(a)(1) 22.619(b)(1)	Remaining volume in current cell.	a) <u>123,400</u> cubic yards	
		Projected date of opening new cell.	b) Date: <u>2025</u>	
2	22.423(b)(2) 22.522(a)(2) 22.619(b)(2)	Remaining volume of all permitted units.	a) <u>1,545,652</u> cubic yards	
		Total air space used during the reporting period.	b) <u>62,650</u> cubic yards	
		Estimated remaining site life (years) based on utilization rate during the reporting period. <i>Note: Itemize current permitted unit/cell information - use attachment if necessary.</i>	c) Landfill Unit/Cell remaining life: Landfill unit/cell <u>Areas 1-3</u> , <u>0</u> years. Landfill unit/cell <u>Areas 4 & 5</u> , <u>1.7</u> years. Landfill unit/cell <u> </u> , <u> </u> years. d) Entire permitted landfill: <u>25.9*</u> years remaining life. <i>*Based on the 5-year average of 60,277 cy/yr of net volume placed.</i>	
3	22.423(b)(3) 22.522(a)(3) 22.619(b)(3)	Documentation of fill progression in compliance with permit plans, specs and operating plan and narrative. <i>Note: Provide narrative regarding fill progression during the reporting period. Be specific about landfill unit/cell designations (example: Cell 1, Phase A completely filled; Cell 2, Phase A, 50% full, being filled south to north as of December 31). Specifically note any overfill conditions.</i>	a) Progression narrative: <u>Waste is currently being placed along the eastern half of Area 5. Fill progression is from south to north. Area 4 is generally at capacity with vegetation covering the north, south, and west interim slopes. Area 5 is approximately 82% filled.</u>	

4	22.423(b)(4) 22.522(a)(4) 22.619(b)(4)	Documentation of compliance with regulatory operating requirements, permit conditions, approved operating plan, and other applicable regulations. Note: Review current operating plans, and permit conditions. Include photographs of engineer's inspection as Attachment A. Check for weekly/monthly operational logs, waste volume records in and out of landfill, unauthorized waste form sheets, waste cover maintenance, stormwater reports to ADEQ, and wet weather repair information.	a) Weekly/monthly operational logs exist (Y/N)? <u>Y</u> b) Photos of AEIR inspection attached (Y/N)? <u>Y</u> c) Waste volume in and out records exist (Y/N)? <u>Y</u> d) Unauthorized waste forms exist (Y/N)? <u>Y</u> e) Daily/weekly cover adequate at time of inspection (Y/N)? <u>Y</u> f) Alternative Daily Cover (ADC) Plan located onsite (Y/N)? <u>Y</u> Operations in compliance with ADC Plan (Y/N)? <u>Y</u> g) Liquid Waste Management (LWM) Plan located onsite (Y/N)? <u>N/A</u> Operations in compliance with LWM Plan (Y/N)? <u>N/A</u> h) Liquids received to be bulked during reporting period: <u>N/A</u> gallons <u>N/A</u> tons i) Waste cover of inactive areas maintained adequately (Y/N)? <u>Y</u> j) Net amount of waste disposed in landfill during reporting period: <u>62,650</u> cubic yards <u>N/A</u> tons k) Leachate head level less than 1' on liner at time of inspection (Y/N)? <u>Y</u>	A
5	22.423(b)(5) 22.522(a)(5) 22.619(b)(5)	Updated contour map that depicts: Note: Provide updated drawing(s) and final cover permit drawing as Attachment B – discuss any discrepancies. Max. contour interval = 2 feet)	a) Updated contour drawing attached (Y/N)? <u>Y</u> b) Final cover permit drawing attached (Y/N)? <u>Y</u> c) List all discrepancies here: <u>No discrepancies observed.</u> d) Is there an overfill condition (Y/N)? <u>N</u>	B
		(i) horizontal and vertical extent of active and inactive fill areas;		
		(ii) status of all permitted units/cells; (Note: Label all active (working face, bulking area, stockpiles), inactive, closed and interim cover areas).	a) Currently, does the facility have sufficient on-site quantities and types of soils for liner and cover construction of permitted units/cells (Y/N)? <u>Y</u> b) If not, where will deficiency shortfalls be obtained (be specific)? <u>N/A</u> c) Is the current Design Narrative earthwork balance accurate (Y/N)? <u>Y</u> <u>Based on permitted plans, stockpiled soils located east of Area 5 and south of the closed area contain sufficient quantity for cell covers.</u>	
		(iii) survey grid (required by 22.426); Note: Include benchmarks and horizontal controls		
		(iv) location of other visible surface features or improvements (e.g., roads, buildings, gas control systems, etc.); Note: Include leachate risers, manholes, monitoring wells, gas wells, etc.		
		(v) the person responsible for gathering the survey data and the date survey data was taken to prepare the map. Reminder: Reporting period is calendar	a) Name: <u>Mason Surveying & Consulting, Inc</u> b) Name of person using the data to produce contour map: <u>Johnny Mason, PE,PS</u> c) Date survey data was collected: <u>December 19, 2024</u>	

		<i>year. Survey data should be collected to reflect the AEIR reporting period.</i>		
6	22.423(b)(6) 22.522(a)(6) 22.619(b)(6)	Quantity, location, and characteristics of leachate collected, recirculated, and disposed. Note: Provide analytical report as Attachment C. Provide brief narrative on this form in space provided about leachate sources, how leachate is collected, measured and disposed. Also explained how the leachate head on the landfill liner is monitored and measured.	a) Leachate Collected: <u>53,882,963 gallons</u> b) Leachate Disposed: <u>53,882,963 gallons</u> c) Leachate Recirculated: <u>N/A gallons</u> d) Leachate Recirculation Plan exists (Y/N)? <u>N/A</u> ADEQ approval Doc # <u>N/A</u> e) Leachate operating records exist (Y/N)? <u>N</u> f) Leachate analytical report attached (Y/N)? <u>N</u> , the leachate analytical data was included as part of the semi-annual groundwater monitoring reports submitted during the reporting period. 1 st Half – 6.27.2024 and 2 nd Half – 12.13.2024. g) Leachate narrative (collection, measurements, and disposal): <u>Areas 1-5 of the active landfill were constructed with a waste containment berm around the entire perimeter of the landfill. Leachate generated within each area flows to a center collection corridor where it then gravity drains to the northern leachate lift station. The existing landfill to the south has a final cover system installed and therefore the amount of infiltration that would generate leachate is considered negligible. However, the leachate that is generated within the closed landfill is directed to the southern leachate lift station where it is pumped via forcemain to the northern leachate lift station. From the northern lift station, leachate is pumped into the plant's NPDES permitted wastewater treatment facility. The pump within the lift station is fitted with a run indicator that records the amount of time the leachate pump has operated. The pump run time is then multiplied by the pump flow rate of 461 gallons per minute to estimate the gallons of leachate disposed of during the reporting year.</u> h) Leachate narrative (verifying <1' head on liner system): <u>Leachate sumps are inspected to verify depth of leachate. Also, float switches are set to activate the sump pumps at compliance levels.</u>	C (see note)
7	22.423(b)(7) 22.522(a)(7) 22.619(b)(7)	Maintenance of stormwater controls and best management practices for erosion control. Note: List any upset conditions during the reporting period (i.e., washouts, etc...). Also, include narrative about vegetation maintenance and repair.	a) <i>Briefly list maintenance activities and upset conditions here:</i> <u>Stormwater run-on is prevented from entering the active disposal area. The Facility performs routine maintenance at the site to minimize erosion of the Landfill cover system. Routine maintenance includes the removal of silt from the drainage pathways and conduits. Also, the placement of hay bales and/or rock check dams in the drainage pathways are used to control erosion. When required, seeding and mulching are used to control erosion on the landfill slopes and drainage pathways. The Landfill slopes are mowed as needed to manage vegetative growth.</u>	

8	22.423(b)(8) 22.619(b)(8)	Status of capping and closure of completed areas. <i>Note: List areas with acreage that have received interim or final cover. Include total landfilled area acreage not yet under final certified closed cover. Note: "Certified closed" means the facility has received an approval letter from ADEQ accepting the engineer's closure certification report.</i>	a) Lndfl unit/cell <u>Area 1</u> , <u>9.5</u> acres. Intrm or Final Cover (I/F): <u>F</u> Doc#: <u>30033</u> b) Lndfl unit/cell <u>Area 2</u> , <u>8.4</u> acres. Intrm or Final Cover (I/F): <u>F</u> Doc#: <u>58876</u> c) Lndfl unit/cell <u>Area 3</u> , <u>6.3</u> acres. Intrm or Final Cover (I/F): <u>F</u> Doc#: <u>62541</u> d) Acres of disposed waste not under final certified cover: <u>23.1</u> acres <u>Areas 4 and 5 (23.1 acres) do not have interim or final cover.</u> e) Acres of disposed waste area that have interim cover: <u>0</u> acres	
9	22.423(b)(9) 22.522(a)(8) 22.619(b)(9)	Status of remedial or corrective action activities. <i>Note: List corrective action events during reporting period (e.g., seeps and erosion correction, leachate spills, unauthorized waste handling and removal, etc...), and indicate whether action was taken in response to an ADEQ inspection. Note: If trust fund financial assurance mechanism is utilized, the trust fund must fully fund all acres permitted.</i>	a) <i>Briefly list corrective actions events here:</i> <u>The ADEQ conducted four site inspections during the reporting period. No allegations of noncompliance were observed during the site inspections.</u> b) Were any of the corrective actions taken in response to an ADEQ inspection (Y/N)? <u>N/A</u> c) Current status of corrective actions: <u>N/A</u> d) Did corrective actions permanently solve the conditions (Y/N)? <u>N/A</u> <i>Explain briefly:</i> _____	
10	22.423(b)(10) 22.522(a)(9) 22.619(b)(10)	Updated Financial Assurance documentation as required by Chapter 14. <i>Note: Include copy of most recent financial assurance documentation as Attachment D. Also, include updated closure and post closure cost estimated as an attachment– recommend to use the Closure Costs and Post-closure Care Costs Worksheet located at ADEQ - Solid Waste - Technical Branch Home Page Specific links to the worksheets: http://www.adeq.state.ar.us/solwaste/branch_technical/pdfs/closure_costs_worksheet.xlsx and http://www.adeq.state.ar.us/solwaste/branch_technical/pdfs/post_closure_care_costs_worksheet.xlsx. . Show detailed calculations of cost items in tabular format with specific item breakdowns. Also, show source of unit cost information and/or inflationary factor adjustments – use ADEQ factors where applicable. If updated unit cost information is used instead of inflationary factors, show the source of unit cost information. Confirm estimates are based on largest area ever requiring final cover.</i>	a) Size of facility property under current permit? <u>185</u> acres b) Size of actual permitted disposal area? <u>100</u> acres c) What is the current total permitted disposal area that contains disposed waste but is not certified closed? <u>23.1</u> acres d) Updated closure cost estimate amount: \$ <u>2,760,060</u> e) Is the closure cost estimate based on the largest area ever requiring closure (Y/N)? <u>Y</u> f) Is the existing closure financial assurance adequate for acreage not yet certified closed (Y/N)? <u>Y</u> g) Updated post closure care cost estimate amount: \$ <u>1,028,573</u> h) Is the existing post closure care financial assurance adequate for all permitted areas (Y/N)? <u>Y</u> i) Is the financial assurance mechanism a trust fund (Y/N)? <u>N</u> j) Are the sources of information for updated unit cost line items shown on the cost estimate calculations (Y/N)? <u>Y</u> k) Do the unit cost items for soil cover material include actual third party cost of materials and labor (Y/N)? <u>Y</u>	D

11	22.423(b)(11) 22.522(a)(10) 22.619(b)(11)	Revised or updated facility Closure Plan in accordance with Chapter 13. Note: Provide updated Closure Plan as Attachment E if facility obtained a permit modification during the reporting period that affects the closure and/or post closure care.	a) Was an updated Closure Plan required during this reporting period (Y/N)? <u> N </u> b) Is an updated Closure Plan attached herein (Y/N)? <u> N </u> <u>A Closure Plan was updated as part of a Minor Permit Modification Application submitted to the DEQ June 5, 2025. The Minor Permit Modification application is still under review by the DEQ.</u>	
12	22.423(b)(12) 22.522(a)(11) 22.619(b)(12)	Other items that affect compliance. Note: Include an ADEQ enforcement activity summary (solid waste, water, air, hazardous waste related) and , status of operating and permit fees. Also, include brief narrative concerning groundwater monitoring reports, landfill gas, leachate recirculation, alternate daily cover, etc...	a) Are there current ADEQ enforcement actions (Y/N)? <u> N </u> b) Summary of enforcement actions: <u> N/A </u> c) Are operating and permit fees payments up-to-date (Y/N)? <u> Y </u> If not explain: _____ Additional Information: d) Does the facility monitor groundwater (Y/N)? <u> Y </u> If so, is it detection monitoring or assessment monitoring?: <u>Detection</u> e) What is the groundwater analytical sampling frequency? <u> 6 </u> months f) Does the facility collect landfill gas (Y/N)? <u> N </u> g) Does the facility have a Gas Monitoring Plan (Y/N)? <u> N </u> h) Does the facility have gas monitoring probes (Y/N)? <u> N </u> i) Does the facility use an alternate daily cover (ADC)(Y/N)? <u> Y </u> If so, what type of ADC is used: <u>Wastewater filter cake “press sludge” & wood bark residue.</u> If so, list document id# approving ADC: <u>Specific Condition (12) of the permit and Doc#: 60468.</u> j) Does the facility have a Liquid Waste Management (LWM) Plan (Y/N)? <u> N </u> If so, list document id# approving the LWM Plan: <u> N/A </u> k) Date and document id # of currently approved Operating Plan and Narrative: Date: <u>09/2020</u> Doc#: <u>78965</u> Date: <u>10/2020</u> Doc#: <u>79084</u> l) Date and document id # for currently approved Closure/ Post Closure Plan: Date: <u>08/2020</u> Doc#: <u>78782</u> m) Date and document id # of currently approved Permit Drawings: Date: <u>11/1995</u> Doc#: <u>28317</u> n) Date and document id # of currently approved Design Narrative: Date: <u>12/1995</u> Doc#: <u>28002</u> o) Are weigh scales utilized at the landfill (Y/N)? <u> N </u> p) Does the final cap include a synthetic liner (Y/N)? <u> N </u> q) Does the final cap include clay liner (Y/N)? <u> Y </u> r) Total current permitted landfill volume: <u>4,172,662</u> cubic yards	

13	22.423(b) 22.522(a) 22.619(b)	Certification of AEIR Report: "I have inspected the landfill site and have prepared this report to reflect operational compliance with permit conditions, permit plans, specifications, narrative, and all applicable regulations"	a) Arkansas Licensed Engineer: Sign: <u>Jonathan King</u> Date: <u>6/27/2025</u> b) License Number: <u>14977</u> c) Attach seal here:  	
----	-------------------------------------	---	---	--

Attachment A

Photographic Log



PHOTOGRAPHIC LOG



Photo No. 1

Looking southwest at the active working face in Area 5.

Photo No. 2
Looking south at the eastern slope of Area 5.



Photo No. 3

Looking southeast at the active working face in Area 5.

PHOTOGRAPHIC LOG



Photo No. 4

Looking north at the future Area 6 footprint, located between Area 3 and Area 4.

Photo No. 5
Looking west at the northern slopes of
Areas 1-3.



Photo No. 6

Looking east at the southern slope of Area 4-5.

PHOTOGRAPHIC LOG



Photo No. 7

Vertical leachate sump riser located on the south side of the existing closed landfill.



Photo No. 8

Northern leachate lift station located on the north end of future Area 6.



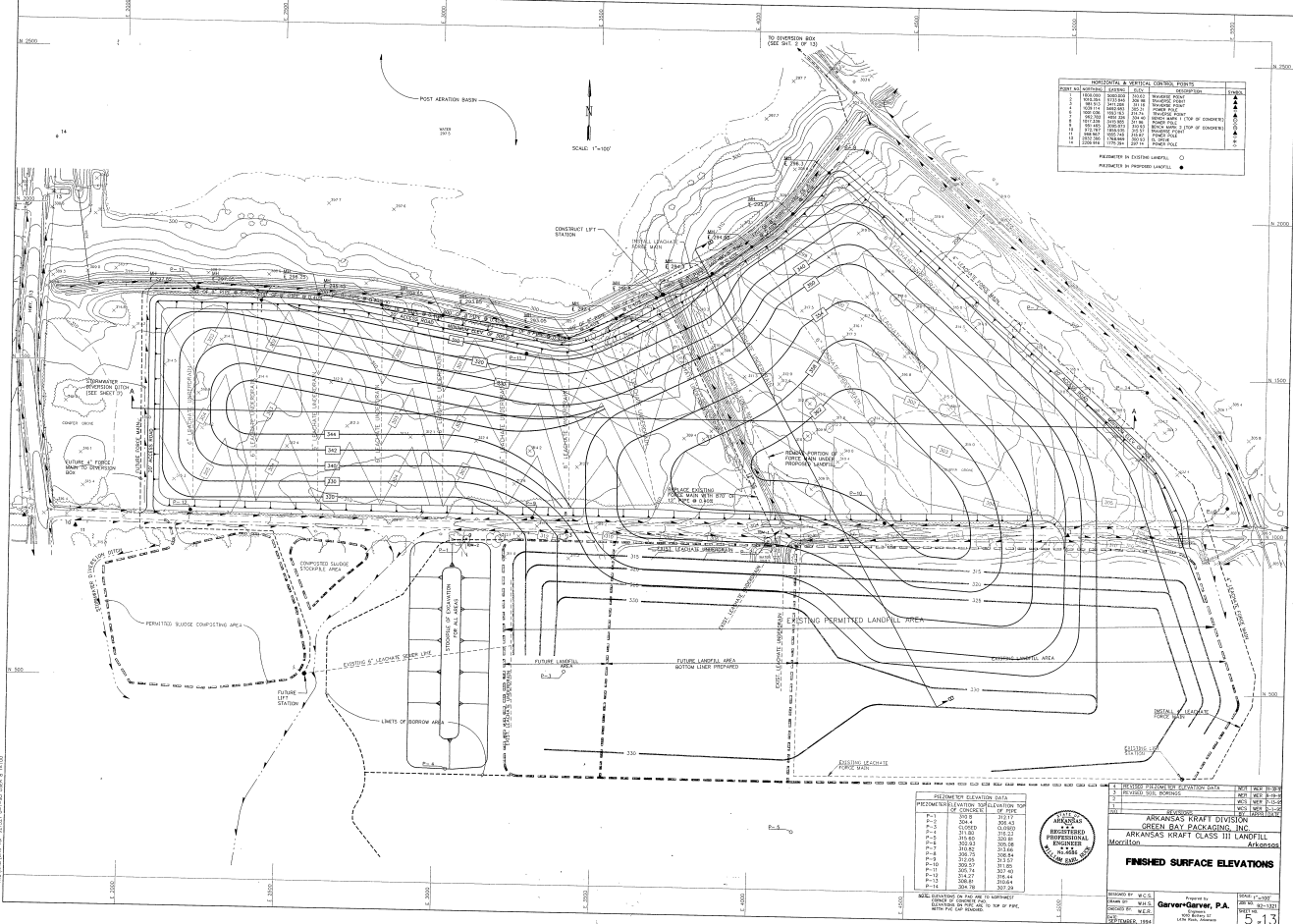
Photo No. 9

Looking east at the northern landfill perimeter near the north leachate lift station.

Attachment B

Updated Drawings





HORIZONTAL & VERTICAL CONTROL POINTS				
POINT NO.	EASTING	NORTHING	DESCRIPTION	TYPE
1	1000.00	1000.00	STATIONARY	1
2	1000.00	1000.00	STATIONARY	1
3	1000.00	1000.00	STATIONARY	1
4	1000.00	1000.00	STATIONARY	1
5	1000.00	1000.00	STATIONARY	1
6	1000.00	1000.00	STATIONARY	1
7	1000.00	1000.00	STATIONARY	1
8	1000.00	1000.00	STATIONARY	1
9	1000.00	1000.00	STATIONARY	1
10	1000.00	1000.00	STATIONARY	1
11	1000.00	1000.00	STATIONARY	1
12	1000.00	1000.00	STATIONARY	1
13	1000.00	1000.00	STATIONARY	1
14	1000.00	1000.00	STATIONARY	1
15	1000.00	1000.00	STATIONARY	1
16	1000.00	1000.00	STATIONARY	1
17	1000.00	1000.00	STATIONARY	1
18	1000.00	1000.00	STATIONARY	1
19	1000.00	1000.00	STATIONARY	1
20	1000.00	1000.00	STATIONARY	1
21	1000.00	1000.00	STATIONARY	1
22	1000.00	1000.00	STATIONARY	1
23	1000.00	1000.00	STATIONARY	1
24	1000.00	1000.00	STATIONARY	1
25	1000.00	1000.00	STATIONARY	1
26	1000.00	1000.00	STATIONARY	1
27	1000.00	1000.00	STATIONARY	1
28	1000.00	1000.00	STATIONARY	1
29	1000.00	1000.00	STATIONARY	1
30	1000.00	1000.00	STATIONARY	1
31	1000.00	1000.00	STATIONARY	1
32	1000.00	1000.00	STATIONARY	1
33	1000.00	1000.00	STATIONARY	1
34	1000.00	1000.00	STATIONARY	1
35	1000.00	1000.00	STATIONARY	1
36	1000.00	1000.00	STATIONARY	1
37	1000.00	1000.00	STATIONARY	1
38	1000.00	1000.00	STATIONARY	1
39	1000.00	1000.00	STATIONARY	1
40	1000.00	1000.00	STATIONARY	1
41	1000.00	1000.00	STATIONARY	1
42	1000.00	1000.00	STATIONARY	1
43	1000.00	1000.00	STATIONARY	1
44	1000.00	1000.00	STATIONARY	1
45	1000.00	1000.00	STATIONARY	1
46	1000.00	1000.00	STATIONARY	1
47	1000.00	1000.00	STATIONARY	1
48	1000.00	1000.00	STATIONARY	1
49	1000.00	1000.00	STATIONARY	1
50	1000.00	1000.00	STATIONARY	1
51	1000.00	1000.00	STATIONARY	1
52	1000.00	1000.00	STATIONARY	1
53	1000.00	1000.00	STATIONARY	1
54	1000.00	1000.00	STATIONARY	1
55	1000.00	1000.00	STATIONARY	1
56	1000.00	1000.00	STATIONARY	1
57	1000.00	1000.00	STATIONARY	1
58	1000.00	1000.00	STATIONARY	1
59	1000.00	1000.00	STATIONARY	1
60	1000.00	1000.00	STATIONARY	1
61	1000.00	1000.00	STATIONARY	1
62	1000.00	1000.00	STATIONARY	1
63	1000.00	1000.00	STATIONARY	1
64	1000.00	1000.00	STATIONARY	1
65	1000.00	1000.00	STATIONARY	1
66	1000.00	1000.00	STATIONARY	1
67	1000.00	1000.00	STATIONARY	1
68	1000.00	1000.00	STATIONARY	1
69	1000.00	1000.00	STATIONARY	1
70	1000.00	1000.00	STATIONARY	1
71	1000.00	1000.00	STATIONARY	1
72	1000.00	1000.00	STATIONARY	1
73	1000.00	1000.00	STATIONARY	1
74	1000.00	1000.00	STATIONARY	1
75	1000.00	1000.00	STATIONARY	1
76	1000.00	1000.00	STATIONARY	1
77	1000.00	1000.00	STATIONARY	1
78	1000.00	1000.00	STATIONARY	1
79	1000.00	1000.00	STATIONARY	1
80	1000.00	1000.00	STATIONARY	1
81	1000.00	1000.00	STATIONARY	1
82	1000.00	1000.00	STATIONARY	1
83	1000.00	1000.00	STATIONARY	1
84	1000.00	1000.00	STATIONARY	1
85	1000.00	1000.00	STATIONARY	1
86	1000.00	1000.00	STATIONARY	1
87	1000.00	1000.00	STATIONARY	1
88	1000.00	1000.00	STATIONARY	1
89	1000.00	1000.00	STATIONARY	1
90	1000.00	1000.00	STATIONARY	1
91	1000.00	1000.00	STATIONARY	1
92	1000.00	1000.00	STATIONARY	1
93	1000.00	1000.00	STATIONARY	1
94	1000.00	1000.00	STATIONARY	1
95	1000.00	1000.00	STATIONARY	1
96	1000.00	1000.00	STATIONARY	1
97	1000.00	1000.00	STATIONARY	1
98	1000.00	1000.00	STATIONARY	1
99	1000.00	1000.00	STATIONARY	1
100	1000.00	1000.00	STATIONARY	1

DESIGNED BY: W.C.S. Prepared by: W.C.S.
 DRAWN BY: W.C.S. Checked by: W.C.S.
 DATE: 10/1/84 DATE: 10/1/84

REGISTERED PROFESSIONAL ENGINEER
 ARKANSAS
 NO. 10000

FINISHED SURFACE ELEVATIONS

REVISIONS:
 1. REVISION: 10/1/84
 2. REVISION: 10/1/84
 3. REVISION: 10/1/84
 4. REVISION: 10/1/84
 5. REVISION: 10/1/84
 6. REVISION: 10/1/84
 7. REVISION: 10/1/84
 8. REVISION: 10/1/84
 9. REVISION: 10/1/84
 10. REVISION: 10/1/84

THIS DRAWING IS THE PROPERTY OF GREEN BAY PACKAGING, INC. AND IS NOT TO BE REPRODUCED OR COPIED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF GREEN BAY PACKAGING, INC.

Attachment D

Updated Financial Assurance



LANDFILL CLOSURE - COST ESTIMATE WORKSHEET

OWNER: Arkansas Kraft Division	PERMIT No: 0284-S3N	AFIN No: 15-00001
OPERATOR: Green Bay Packaging Inc.	ESTIMATOR: Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977)	DATE: June 4, 2025
TOTAL PERMITTED WASTE DISPOSAL ACRES: ±100		
TOTAL PERMITTED ACRES CERTIFIED CLOSED: ±69.2	ACRES CURRENTLY OPEN: 23.1	
LARGEST ACREAGE EVER REQUIRING FINAL COVER OVER ACTIVE LANDFILL LIFE: ±33.0		

LANDFILL CLOSURE COST ESTIMATE WORKSHEET

Permit: 0284-S3N

AFIN: 15-00001

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
1.0.0	PROFESSIONAL SERVICES						
1.1.0	Engineering (Design, Bid Documents, Procurement, Construction Contract Management)	1	Lump Sum	\$50,000	\$ 50,000		Engineer's Estimate
1.2.0	Topographic and Boundary Survey	33	ACRE	\$915	\$ 30,195		Engineer's Estimate
1.3.0	Engineering Services (Construction Oversight, Testing, Reporting, Certification)	1	Lump Sum	\$156,750	\$ 156,750		Engineer's Estimate
	Professional Services Subtotal					\$ 236,945	
2.0.0	FINAL COVER						
2.1.0	Low Permeability Soil Layer						
2.1.1	Contractor Mobilization/Demobilization	1	ACRE	\$75,000	\$ 75,000		Engineer's Estimate
2.1.2	Preparation of landfill to receive cover (final grading)	33	ACRE	\$1,500	\$ 49,500		Engineer's Estimate
2.1.3	Geosynthetic Clay Liner	0	SQ. FT.	\$0.00	\$ -		N/A
2.1.4	Clay, On-site (excavate, transport, place, compact) (Quantity must match earthwork balance)	106,480	CU. YD.	\$10.00	\$ 1,064,800		Engineer's Estimate
	Low Permeability Soil Layer Subtotal					\$ 1,189,300	
2.2.0	Geomembrane and Drainage Layer						
2.2.1	Drainage material--sand	0	CU. YD.	\$0.00	\$ -		N/A
2.2.2	Drainage material--geocomposite (purchase + install)	0	SQ. FT.	\$0.00	\$ -		N/A
2.2.3	Geomembrane (40 mil HDPE)	0	SQ. FT.	\$0.00	\$ -		N/A
	Geomembrane and Drainage Layer Subtotal					\$ -	
2.3.0	Protective Soil and Vegetative Layer						
2.3.1	Protective Soil, On-site (excavate, transport, place, compact) (Quantity must match earthwork balance and must be guaranteed for future availability)	0	CU. YD.	\$0.00	\$ -		N/A
2.3.2	Protective Soil, Off-site (excavate, transport, place, compact) (Quantity must match earthwork balance)	0	CU. YD.	\$0.00	\$ -		N/A
2.3.3	Vegetative Soil (Topsoil), On-site (excavate, transport, place) (Quantity must match earthwork balance and must be guaranteed for future availability)	0	CU. YD.	\$0.00	\$ -		N/A
2.3.4	Vegetative Soil (Topsoil), Off-site (excavate, transport, place) (Quantity must match earthwork balance)	26,620	CU. YD.	\$20.00	\$ 532,400		Engineer's Estimate
2.3.5	Seeding and mulching	33	ACRE	\$4,000	\$ 132,000		Engineer's Estimate
2.3.6	Fertilizer	33	ACRE	\$750	\$ 24,750		Engineer's Estimate
	Protective Soil and Vegetative Layer Subtotal					\$ 689,150	
3.0.0	EROSION CONTROL						
3.1.0	Temporary Stormwater Control & Management During Construction	1.0	LS	\$25,000	\$ 25,000		Engineer's Estimate
3.2.0	Checkdams, filters, inlet/outlet protection	1	Lump Sum	\$20,000	\$ 20,000		Engineer's Estimate
3.3.0	Grass ditching/channels	0	Lin. FT.	\$0.00	\$ -		N/A
3.4.0	Concrete ditch lining & Concrete Culverts	0	Lin. FT.	\$0.00	\$ -		N/A
	Erosion Control Subtotal					\$ 45,000	
4.0.0	GAS SYSTEM						
4.1.0	Gas vents, vents, _____ average depth	0	Lin. FT.	\$0.00	\$ -		N/A
4.2.0	Passive System						
4.2.1	Passive well head flare	0	EACH	\$0.00	\$ -		N/A
4.3.0	Active System						
4.3.1	Flare, _____ BTU/hour	0	EACH	\$0.00	\$ -		N/A
4.3.2	Additional Well Installation	0	ACRE	\$0.00	\$ -		N/A
4.3.4	Ancillary gas equipment (piping, blowers, condensate collection)	0	ACRE	\$0.00	\$ -		N/A
	Gas System Subtotal					\$ -	
5.0.0	GROUNDWATER MONITORING SYSTEM						
5.1.0	Well installation		EACH	\$0.00	\$ -		N/A
5.2.0	Upgrade existing wells	1	LS	\$5,000.00	\$ 5,000		Engineer's Estimate
5.3.0	Dedicated pump/sampling system installation/upgrade	1	EACH	\$3,000.00	\$ 3,000		Engineer's Estimate
5.4.0	Baseline sample collection (4 events per first year, 2 samples per event)	4	EVENT	\$4,000.00	\$ 16,000		Engineer's Estimate
5.5.0	Baseline sample analysis and reporting (4 events per first year, 2 samples per event)	4	EVENT	\$2,500.00	\$ 10,000		Engineer's Estimate
	Groundwater Monitoring System Subtotal					\$ 34,000	
6.0.0	LEACHATE COLLECTION SYSTEM						
6.1.0	Additional/upgrades for collection piping	0	Lin. FT.	\$0.00	\$ -		N/A
6.2.0	Additional/upgrades to pumps	2	EACH	\$3,000.00	\$ 6,000.00		Engineer's Estimate
6.3.0	Additional/upgrades to storage containers	0	EACH	\$0.00	\$ -		N/A
6.4.0	Baseline sample collection	1	EACH	\$5,000.00	\$ 5,000.00		Engineer's Estimate
6.5.0	Baseline sample analysis and reporting	1	EACH	\$10,000.00	\$ 10,000.00		Engineer's Estimate
	Leachate Collection System Subtotal					\$ 21,000	
7.0.0	OPERATIONS AND INVENTORY REMOVAL						
7.1.0	Excess solid waste	0	CU. YD.	\$0.00	\$ -		N/A
7.2.0	Mobile equipment/machinery (e.g., containers, tanks, etc...)	0	Lump Sum	\$0.00	\$ -		N/A
7.3.0	Stored leachate	0	GAL.	\$0.000	\$ -		N/A
7.4.0	Contaminated soils	0	CU. YD.	\$0.00	\$ -		N/A
	Operations and Inventory Removal Subtotal					\$ -	
8.0.0	DEMOLITION/REMOVAL SITE IMPROVEMENTS						
8.1.0	Office/shop/maintenance and other ancillary buildings	0	Lump Sum	\$0	\$ -		N/A
8.2.0	Equipment to be decommissioned (e.g., weigh scales, bulking/solidification pits, collection pits/sumps, piping, etc...)	1	Lump Sum	\$25,000	\$ 25,000		Engineer's Estimate
8.3.0	Site Utilities	1	Lump Sum	\$10,000	\$ 10,000		Engineer's Estimate
	Demolition/Removal Site Improvements Subtotal					\$ 35,000	
9.0.0	REPLACE/REBUILD SITE ACCESS CONTROLS						
9.1.0	Fencing	0	Lin. FT.	\$0	\$ -		N/A
9.2.0	Gates	2	Lump Sum	\$20,000	\$ 40,000		Engineer's Estimate
9.3.0	Access barriers	2	Lump Sum	\$5,000	\$ 10,000		Engineer's Estimate
9.4.0	20' Wide Perimeter Access road	1,000	LF	\$150	\$ 150,000		Engineer's Estimate
	Replace/Rebuild Site Access Controls Subtotal					\$ 200,000	
10.0.0	BORROW AREA RECLAMATION						
10.1.0	Regrade and site prep	5	ACRE	\$7,000	\$ 35,000		Engineer's Estimate
10.2.0	Soil, On-site (excavate, transport, place, compact)	0	CU. YD.	\$0.00	\$ -		N/A
10.3.0	Soil, Off-site (excavate, transport, place, compact)	0	CU. YD.	\$0.00	\$ -		N/A
10.4.0	Seeding and mulching	5	ACRE	\$4,000	\$ 20,000		Engineer's Estimate
10.5.0	Fertilizer	5	ACRE	\$750	\$ 3,750		Engineer's Estimate
	Borrow Area Reclamation Subtotal					\$ 58,750	
	Total Closure Cost Subtotal					\$ 2,509,145	
11.0.0	MISCELLANEOUS						
11.1.1	Administration and Contingency	1	LS	\$250,915	\$ 250,915		Approximately 10% of Total Closure Cost
	Misc. Subtotal					\$ 250,915	
	TOTAL CURRENT CLOSURE COST					\$ 2,760,060	

LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET

OWNER: Arkansas Kraft Division	PERMIT NO: 0284-S3N	AFIN: 15-00001
OPERATOR: Green Bay Packaging Inc	ESTIMATOR: Brad N. Fureigh, P.E. (Ark. Licensed P.E. #: 14977)	DATE: June 4, 2025
TOTAL PERMITTED WASTE DISPOSAL ACRES: ±100		
TOTAL PERMITTED ACRES CERTIFIED CLOSED: ±69.2		

LANDFILL POST-CLOSURE CARE - ANNUAL COST ESTIMATE WORKSHEET Permit: 0284-S3N AFIN: 15-00001

ITEM No.	ITEM	QUANTITY	UNITS	UNIT COST	COST	SUBTOTALS	SOURCE OF UNIT COST INFO
1.0.0	PROFESSIONAL SERVICES						
1.1.0	Engineering (Annual inspection and reporting, corrective action design and bid, contract management)	1	Lump Sum	\$4,500	\$ 4,500		Engineer's Estimate
1.2.0	Topographic and Boundary Survey (annual, final, and corrective action, if required)	1	Lump Sum	\$3,500	\$ 3,500		Engineer's Estimate
1.3.0	Corrective Action Engineering Services (Construction Oversight, Testing, Reporting, Certification)	1	Lump Sum	\$60,000	\$ 60,000		Engineer's Estimate
	Professional Services Annual Subtotal					\$ 68,000	
2.0.0	FINAL COVER ROUTINE MAINTENANCE						
2.1.0	Inspect soil cover, vents, flares, drainage letdowns and outfalls, etc...	2	EVENT	\$5,000	\$ 10,000		Engineer's Estimate
2.2.0	Mowing/Trimming (100 acres twice per year)	200	ACRE	\$60	\$ 12,000		Engineer's Estimate
2.3.0	Clean Drain/Vent Openings	0	EVENT	\$0	\$ -		N/A
	Final Cover Routine Maintenance Annual Subtotal					\$ 22,000	
3.0.0	FINAL COVER REPAIRS						
3.1.0	Remove/incorporate unacceptable materials (e.g., dead vegetation, solid waste)	10	ACRE	\$55	\$ 550		Engineer's Estimate
3.2.0	Scarify and prepare surface	10	ACRE	\$1,500	\$ 15,000		Engineer's Estimate
3.3.0	Soil, On-Site (excavate, transport, place, compact)	32,267	CU. YD.	\$7.00	\$ 225,867		Engineer's Estimate
3.4.0	Soil, Off-site (excavate, transport, place, compact)		CU. YD.	\$0.00	\$ -		N/A
3.5.0	Seeding and mulching	10	ACRE	\$2,500	\$ 25,000		Engineer's Estimate
3.6.0	Fertilizer	10	ACRE	\$500	\$ 5,000		Engineer's Estimate
	Final Cover Repairs Annual Subtotal					\$ 271,417	
4.0.0	ACCESS ROADS REPAIRS						
4.1.0	Reshape/regrade subgrade	1,000	SQ. FT.	\$2.30	\$ 2,300		Engineer's Estimate
4.2.0	Gravel (transport, place, compact)	37	TON	\$45	\$ 1,667		Engineer's Estimate
4.3.0	Drainage Structures (e.g., culverts,	0	LS	\$0	\$ -		N/A
4.4.0	Concrete lined ditching/channels	0	LS	\$0	\$ -		N/A
	Access Roads Repair Annual Subtotal					\$ 3,967	
5.0.0	SURFACE WATER MANAGEMENT OPERATION AND MAINTENANCE (O&M)						
5.1.0	Collection system operation and maintenance (ditches, piping conveyances, outfalls, sampling points repair/replace)	0	Lump Sum	\$0	\$ -		N/A
5.2.0	Stormwater storage (sediment pond) operation/repairs	0	Lump Sum	\$0	\$ -		N/A
5.3.0	Sample collection	0	EVENT	\$0	\$ -		N/A
5.4.0	Sample analysis and reporting	0	EVENT	\$0	\$ -		N/A
	Surface Water Management O&M Annual Subtotal					\$ -	
6.0.0	LEACHATE COLLECTION SYSTEM O&M						
	Generation Rate = 35,000,000 gal/yr.						
6.1.0	Collection operation/maintenance (pump, piping, storage...operation/repair/replace)	1	YEAR	\$3,500	\$ 3,500		Engineer's Estimate
6.2.0	Leachate loading, off-loading and off-site transportation		EVENT	\$0.00	\$ -		N/A
6.3.0	Leachate Treatment/Disposal	0	GAL.	\$0.000	\$ -		N/A
6.4.0	Additional/upgrades for piping, pumps and storage	0	Lump Sum	\$0	\$ -		N/A
6.5.0	Leachate sample collection	0	YEAR	\$0	\$ -		N/A
6.6.0	Leachate sample analysis and reporting	1	YEAR	\$3,500	\$ 3,500		Engineer's Estimate
	Leachate Collection System O&M Annual Subtotal					\$ 7,000	
7.0.0	GROUNDWATER MONITORING SYSTEM O&M						
	Number of Wells in Approved System = 11						
7.1.0	Well maintenance (e.g., protective casing (lock & hinges) repair/replacement, well pad repair/replace, etc...)	1	LS	\$1,350	\$ 1,350		Engineer's Estimate
7.2.0	Upgrade/redevelop existing wells	1	LS	\$1,100	\$ 1,100		Engineer's Estimate
7.3.0	Well Replacement	1	LS	\$1,100	\$ 1,100		Engineer's Estimate
7.4.0	Sample collection (2 events per year)	2	EVENT	\$5,300	\$ 10,600		Engineer's Estimate
7.5.0	Sample analysis and reporting (2 events per year)	2	EVENT	\$14,500	\$ 29,000		Engineer's Estimate
	Groundwater Monitoring System O&M Annual Subtotal					\$ 43,150	
8.0.0	GAS MONITORING SYSTEM O&M						
8.1.0	Number of Gas Monitoring Probes/Wells						
8.2.0	Methane monitoring of probes/wells (4 per year)	0	EVENT	\$2,300	\$ -		N/A
8.3.0	Methane monitoring at site boundary and structures (4 per year)	0	EVENT	\$1,700	\$ -		N/A
8.4.0	Sample analysis and reporting	0	EVENT	\$550	\$ -		N/A
	Gas Monitoring System O&M Annual Subtotal					\$ -	
9.0.0	GAS EXTRACTION SYSTEM O&M						
9.1.0	Passive System						
9.1.1	Passive well head flare maintenance	0	EACH	\$0	\$ -		N/A
9.2.0	Active System						
9.2.1	Flare	0	EACH	\$0	\$ -		N/A
9.2.2	Additional Well Installation/Upgrades	0	EACH	\$0	\$ -		N/A
9.2.3	Ancillary gas equipment repair/replacement (piping, blowers, condensate collection)	0	Lump Sum	\$0	\$ -		N/A
	Gas Extraction System O&M Annual Subtotal					\$ -	
10.0.0	CORRECTIVE ACTION EVALUATION AND IMPLEMENTATION						
10.1.0	Resurvey monitoring well reference points and site benchmarks (prorate for annual expenses)	1	EACH	\$2,500	\$ 2,500		Engineer's Estimate
10.2.0	Remove sediments from stormwater basin(s) (prorate for annual expenses)	1	EACH	\$4,000	\$ 4,000		Engineer's Estimate
10.3.0	Groundwater exceedances statistical evaluation	1	EACH	\$5,000	\$ 5,000		Engineer's Estimate
10.4.0	Groundwater alternate source determination (prorate for annual expenses)	1	EACH	\$7,500	\$ 7,500		Engineer's Estimate
10.5.0	Groundwater compliance monitoring (prorate for annual expense)	11	EACH	\$3,000	\$ 33,000		Engineer's Estimate
10.6.0	Other: _____		EACH	\$ -	\$ -		N/A
	Corrective Action Evaluation and Implementation Annual Subtotal					\$ 52,000	
	Total Post-Closure Care Annual Cost Subtotal					\$ 467,533	
11.0.0	MISCELLANEOUS						
11.1.0	Administration and Contingency			\$ 46,753			Approximately 10% of Total Post Closure Cost
	Misc. Subtotal					\$ 46,753	
	TOTAL ESTIMATED ANNUAL POST-CLOSURE CARE COST					\$ 514,287	
	ESTIMATED 2 YEAR POST-CLOSURE CARE PERIOD	2 x "Total Estimated Annual Post-Closure Care Cost".				\$ 1,028,573	