



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

Rick Scott
Governor

Carlos Lopez-Cantera
Lt. Governor

Noah Valenstein
Secretary

September 20, 2017

Transmitted via E-Mail only to: wkissel@titanamerica.com

Mr. William Kissel, Senior Environmental Manager
Titan America
455 Fairway Drive, Suite 200
Deerfield Beach, FL 33441

RE: Titan America Pennsuco Waste Tire Processing Facility
Waste Tire Operation Processing Permit No.: WT-13-0134354-001
WACS No. 100946

Dear Mr. Kissel:

This letter is to acknowledge receipt of the subject facility's updated closure cost estimate dated September 15, 2017, and received on September 15, 2017. This cost estimate was prepared by Koogler & Associates, Inc., for closure of the Titan America Pennsuco tire processing facility located at 11000 NW 121 Way, Medley, FL. The recalculated estimate was submitted to comply with Rule 62-711.500, Florida Administrative Code, (F.A.C.). The following cost estimate received on September 15, 2017 is **APPROVED for September 15, 2017 through September 15, 2018:**

Closing Cost – \$28,950.00

The next annual cost estimate update is due by September 15, 2018.

A copy of this letter will be forwarded to the Financial Coordinator, FDEP, 2600 Blair Stone Road, MS 4565, Tallahassee, Florida 32399-2400. Please work with Tor Bejnar at (850) 245-8743 or tor.bejnar.eldredge@dep.state.fl.us directly to assess the facility's compliance with the funding mechanism requirements of Rule 62-711.500, F.A.C. If you have any questions, you may contact me at (850) 245-8856.

Most information received or sent by the Department is public record and is placed in OCULUS, an electronic database. You can view this and other documents for this facility at the following link:

https://fldeploc.dep.state.fl.us/WWW_WACS/REPORTS/SW_Facility_Docs.asp?wacsid=100946

Sincerely,



James J. Jarmolowski, P.G.
Solid Waste Section
Permitting and Compliance Assistance Program

Enclosure: Closure Cost Estimate Form, September 15, 2017, for Titan America Pennsuco
Waste Tire Processing Facility.

Copies furnished to:

Monica Cardona, Titan America, mcardona@titanamerica.com
Maxwell Lee, Ph.D., P.E., Koogler & Associates, Inc., mlee@kooglerassociates.com
Tammy Reed, Koogler & Associates, Inc., treed@kooglerassociates.com
Johnny Vega, P.E., Miami-Dade RER, DERM, johnny.vega@miamidade.gov
Cory Dilmore, P.E., FDEP PCAP, Tallahassee, Cory.Dilmore@dep.state.fl.us
Tor Bejnar, FDEP Tallahassee Solid Waste Financial Assurance, Tor.Bejnar@dep.state.fl.us
James Jarmolowski, P.G., FDEP PCAP, Tallahassee, james.jarmolowski@dep.state.fl.us



Florida Department of Environmental Protection

Bob Martinez Center
2600 Blair Stone Road
Tallahassee, Florida 32399-2400

DEP Form # 62-701.900(28), F.A.C.
Form Title: Closure Cost Estimating Form
For Solid Waste Facilities
Effective Date: January 6, 2010
Incorporated in Rule 62-701.630(3), F.A.C.

CLOSURE COST ESTIMATING FORM FOR SOLID WASTE FACILITIES

Date of DEP Approval: _____

I. GENERAL INFORMATION:

Facility Name: Tarmac America - Pennsuco Tire Processing Facility WACS ID: 100946
 Permit Application or Consent Order No.: _____ Expiration Date: _____
 Facility Address: 11000 NW 121 Way
 Permittee or Owner/Operator: Titan America, LLC
 Mailing Address: 11000 NW 121 Way, Medley, FL 33178

Latitude: 25° 52' 26" Longitude: 80° 22' 20"
 Coordinate Method: Degrees/Minutes/Sec Datum: NAD83 (assumed)
 Collected by: Unknown Company/Affiliation N/A

Solid Waste Disposal Units Included in Estimate:

Phase / Cell	Acres	Date Unit Began Accepting Waste	Active Life of Unit From Date of Initial Receipt of Waste	If active: Remaining life of unit	If closed: Date last waste received	If closed: Official date of closing
N/A	N/A	N/A	N/A	N/A	N/A	N/A

Total disposal unit acreage included in this estimate: Closure: N/A Long-Term Care: N/A

Facility type: Class I Class III C&D Debris Disposal
 (Check all that apply) Other: N/A

II. TYPE OF FINANCIAL ASSURANCE DOCUMENT (Check type)

- Letter of Credit* Insurance Certificate Escrow Account
 Performance Bond* Financial Test Form 29 (FA Deferral)
 Guarantee Bond* Trust Fund Agreement

* - Indicates mechanisms that require the use of a Standby Trust Fund Agreement

Northwest District
160 Government Center
Pensacola, FL 32502-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-807-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-894-7555

Southwest District
13051 N. Telecom Pky.
Temple Terrace, FL 33637
813-632-7600

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33901-3881
239-332-6975

Southeast District
400 N. Congress Ave., Ste. 200
West Palm Beach, FL 33401
561-681-6600

III. ESTIMATE ADJUSTMENT

40 CFR Part 264 Subpart H as adopted by reference in Rule 62-701.630, Florida Administrative Code, (F.A.C.) sets forth the method of annual cost estimate adjustment. Cost estimates may be adjusted by using an inflation factor or by recalculating the maximum costs of closure in current dollars. Select one of the methods of cost estimate adjustment below.

(a) Inflation Factor Adjustment

(b) Recalculated or New Cost Estimates

Inflation adjustment using an inflation factor may only be made when a Department approved closure cost estimate exists and no changes have occurred in the facility operation which would necessitate modification to the closure plan. The inflation factor is derived from the most recent Implicit Price Deflator for Gross National Product published by the U.S. Department of Commerce in its survey of Current Business. The inflation factor is the result of dividing the latest published annual Deflator by the Deflator for the previous year. The inflation factor may also be obtained from the Solid Waste website www.dep.state.fl.us/waste/categories/swfr or call the Financial Coordinator at (850) 245-8706.

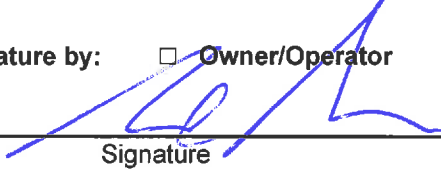
This adjustment is based on the Department approved closing cost estimate dated: _____

Latest Department Approved Closing Cost Estimate:	x	Current Year Inflation Factor, e.g. 1.02	=	Inflation Adjusted Closing Cost Estimate:
_____		_____		_____

This adjustment is based on the Department approved long-term care cost estimate dated: _____

Latest Department Approved Annual Long-Term Care Cost Estimate:	x	Current Year Inflation Factor, e.g. 1.02	=	Inflation Adjusted Annual Long-Term Care Cost Estimate:
_____		_____		_____
Number of Years of Long Term Care Remaining:			x	_____
Inflation Adjusted Long-Term Care Cost Estimate:			=	_____

Signature by: Owner/Operator Engineer (check what applies)



Signature

4014 NW 13th Street

Address

Mawell R. Lee, Ph.D., P.E.

Name & Title

Gainesville, FL 32609

City, State, Zip Code

9/15/17

Date

mlee@kooglerassociates.com

E-Mail Address

352-377-5822

Telephone Number

IV. ESTIMATED CLOSING COST (check what applies)

Recalculated Cost Estimate **New Facility Cost Estimate**

- Notes: 1. Cost estimates for the time period when the extent and manner of landfill operation makes closing most exp
 2. Cost estimate must be certified by a professional engineer.
 3. Cost estimates based on third party suppliers of material, equipment and labor at fair market value.
 4. In some cases, a price quote in support of individual item estimates may be required.

Description	Unit	Number of Units	Cost / Unit	Total Cost
1. Proposed Monitoring Wells (Do not include wells already in existence.)				
	EA	_____	_____	_____
			Subtotal Proposed Monitoring Wells:	_____
2. Slope and Fill (bedding layer between waste and barrier layer):				
Excavation	CY	_____	_____	_____
Placement and Spreading	CY	_____	_____	_____
Compaction	CY	_____	_____	_____
Off-Site Material	CY	_____	_____	_____
Delivery	CY	_____	_____	_____
			Subtotal Slope and Fill:	_____
3. Cover Material (Barrier Layer):				
Off-Site Clay	CY	_____	_____	_____
Synthetics - 40 mil	SY	_____	_____	_____
Synthetics - GCL	SY	_____	_____	_____
Synthetics - Geonet	SY	_____	_____	_____
Synthetics - Other (explain) _____	_____	_____	_____	_____
			Subtotal Cover Material:	_____
4. Top Soil Cover:				
Off-Site Material	CY	_____	_____	_____
Delivery	CY	_____	_____	_____
Spread	CY	_____	_____	_____
			Subtotal Top Soil Cover:	_____
5. Vegetative Layer				
Sodding	SY	_____	_____	_____
Hydroseeding	AC	_____	_____	_____
Fertilizer	AC	_____	_____	_____
Mulch	AC	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____
			Subtotal Vegetative Layer:	_____
6. Stormwater Control System:				
Earthwork	CY	_____	_____	_____
Grading	SY	_____	_____	_____
Piping	LF	_____	_____	_____
Ditches	LF	_____	_____	_____
Berms	LF	_____	_____	_____
Control Structures	EA	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____
			Subtotal Stormwater Control System:	_____

Description	Unit	Number of Units	Cost / Unit	Total Cost
7. Passive Gas Control:				
Wells	EA	_____	_____	_____
Pipe and Fittings	LF	_____	_____	_____
Monitoring Probes	EA	_____	_____	_____
NSPS/Title V requirements	LS	1	\$0.00	_____
Subtotal Passive Gas Control:				_____
8. Active Gas Extraction Control:				
Traps	EA	_____	_____	_____
Sumps	EA	_____	_____	_____
Flare Assembly	EA	_____	_____	_____
Flame Arrestor	EA	_____	_____	_____
Mist Eliminator	EA	_____	_____	_____
Flow Meter	EA	_____	_____	_____
Blowers	EA	_____	_____	_____
Collection System	LF	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____
Subtotal Active Gas Extraction Control:				_____
9. Security System:				
Fencing	LF	_____	_____	_____
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
Subtotal Security System:				_____
10. Engineering:				
Closure Plan Report	LS	1	\$0.00	_____
Certified Engineering Drawings	LS	1	\$0.00	_____
NSPS/Title V Air Permit	LS	1	\$0.00	_____
Final Survey	LS	1	\$0.00	_____
Certification of Closure	LS	1	\$0.00	_____
Other (explain) _____	_____	_____	_____	_____
Subtotal Engineering:				_____

Description	Hours	Cost / Hour	Hours	Cost / Hour	Total Cost
11. Professional Services					
	<u>Contract Management</u>		<u>Quality Assurance</u>		
P.E. Supervisor	_____	_____	_____	_____	_____
On-Site Engineer	_____	_____	_____	_____	_____
Office Engineer	_____	_____	_____	_____	_____
On-Site Technician	_____	_____	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____	_____

Description	Unit	Number of Units	Cost / Unit	Total Cost
Quality Assurance Testing	LS	1	_____	_____
Subtotal Professional Services:				_____

Subtotal of 1-11 Above: _____

12. Contingency 0 % of Subtotal of 1-11 Above
Subtotal Contingency: _____

Estimated Closing Cost Subtotal: _____

Description	Total Cost
13. Site Specific Costs	
Mobilization	_____
Waste Tire Facility	\$28,950.00
Materials Recovery Facility	_____
Special Wastes	_____
Leachate Management System Modification	_____
Other (explain) _____	_____
	Subtotal Site Specific Costs: \$28,950.00

TOTAL ESTIMATED CLOSING COSTS (\$): \$28,950.00

V. ANNUAL COST FOR LONG-TERM CARE

See 62-701.600(1)a.1., 62-701.620(1), 62-701.630(3)a. and 62-701.730(11)b. F.A.C. for required term length. For landfills certified closed and Department accepted, enter the remaining long-term care length as "Other" and provide years remaining. (Check Term Length) 5 Years 20 Years 30 Years Other, ___ Years

- Notes: 1. Cost estimates must be certified by a professional engineer.
 2. Cost estimates based on third party suppliers of material, equipment and labor at fair market value.
 3. In some cases, a price quote in support of individual item estimates may be required.

All items must be addressed. Attach a detailed explanation for all entries left blank.

Description	Sampling Frequency (Events / Year)	Number of Wells	(Cost / Well) / Event	Annual Cost
1. Groundwater Monitoring [62-701.510(6), and (8)(a)]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Groundwater Monitoring:				_____
2. Surface Water Monitoring [62-701.510(4), and (8)(b)]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Surface Water Monitoring:				_____
3. Gas Monitoring [62-701.400(10)]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Gas Monitoring:				_____
4. Leachate Monitoring [62-701.510(5), (6)(b) and 62-701.510(8)c]				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____
Subtotal Leachate Monitoring:				_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
5. Leachate Collection/Treatment Systems Maintenance				
<u>Maintenance</u>				
Collection Pipes	LF	_____	_____	_____
Sumps, Traps	EA	_____	_____	_____
Lift Stations	EA	_____	_____	_____
Cleaning	LS	1	_____	_____
Tanks	EA	_____	_____	_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
5. (continued)				
<u>Impoundments</u>				
Liner Repair	SY	_____	_____	_____
Sludge Removal	CY	_____	_____	_____
<u>Aeration Systems</u>				
Floating Aerators	EA	_____	_____	_____
Spray Aerators	EA	_____	_____	_____
<u>Disposal</u>				
Off-site (Includes transportation and disposal)	1000 gallon	_____	_____	_____
Subtotal Leachate Collection / Treatment Systems Maintenance:				_____
6. Groundwater Monitoring Well Maintenance				
Monitoring Wells	LF	_____	_____	_____
Replacement	EA	_____	_____	_____
Abandonment	EA	_____	_____	_____
Subtotal Groundwater Monitoring Well Maintenance:				_____
7. Gas System Maintenance				
Piping, Vents	LF	_____	_____	_____
Blowers	EA	_____	_____	_____
Flaring Units	EA	_____	_____	_____
Meters, Valves	EA	_____	_____	_____
Compressors	EA	_____	_____	_____
Flame Arrestors	EA	_____	_____	_____
Operation	LS	1	_____	_____
Subtotal Gas System Maintenance:				_____
8. Landscape Maintenance				
Mowing	AC	_____	_____	_____
Fertilizer	AC	_____	_____	_____
Subtotal Landscape Maintenance:				_____
9. Erosion Control and Cover Maintenance				
Sodding	SY	_____	_____	_____
Regrading	AC	_____	_____	_____
Liner Repair	SY	_____	_____	_____
Clay	CY	_____	_____	_____
Subtotal Erosion Control and Cover Maintenance:				_____
10. Storm Water Management System Maintenance				
Conveyance Maintenance	LS	1	_____	_____
Subtotal Storm Water Management System Maintenance:				_____
11. Security System Maintenance				
Fences	LS	1	_____	_____
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
Subtotal Security System Maintenance:				_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
12. Utilities	LS	1		
			Subtotal Utilities:	
13. Leachate Collection/Treatment Systems Operation				
<u>Operation</u>				
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR			
Materials	LS	1		
			Subtotal Leachate Collection/Treatment Systems Operation:	
14. Administrative				
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR			
Other _____				
			Subtotal Administrative:	
			Subtotal of 1-14 Above:	
15. Contingency			% of Subtotal of 1-14 Above	
			Subtotal Contingency:	

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
16. Site Specific Costs				

			Subtotal Site Specific Costs:	

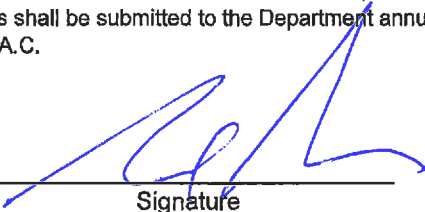
ANNUAL LONG-TERM CARE COST (\$ / YEAR): _____

Number of Years of Long-Term Care: _____

TOTAL LONG-TERM CARE COST (\$): _____

VI. CERTIFICATION BY ENGINEER

This is to certify that the Cost Estimates pertaining to the engineering features of this solid waste management facility have been examined by me and found to conform to engineering principles applicable to such facilities. In my professional judgment, the Cost Estimates are a true, correct and complete representation of the financial liabilities for closing and/or long-term care of the facility and comply with the requirements of Rule 62-701.630 F.A.C. and all other Department of Environmental Protection rules, and statutes of the State of Florida. It is understood that the Cost Estimates shall be submitted to the Department annually, revised or adjusted as required by Rule 62-701.630(4), F.A.C.



Signature

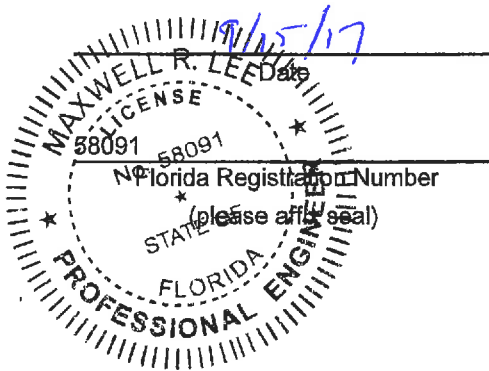
Maxwell R. Lee, Ph.D., P.E.
Name and Title (please type)

4014 NW 13th Street
Mailing Address

Gainesville, FL 32609
City, State, Zip Code

mlee@kooglerassociates.com
E-Mail address (if available)

352-377-5822
Telephone Number



VII. SIGNATURE BY OWNER/OPERATOR



Signature of Applicant

William Kissel, Sr. Env. Manager
Name and Title (please type)

wkissel@titanamerica.com
E-Mail address (if available)

455 Fairway Drive Suite 200
Mailing Address

Deerfield Beach, FL 33441
City, State, Zip Code

954-425-4210
Telephone Number