



654-17-11  
September 15, 2017

4014 NORTH WEST 13<sup>th</sup> STREET  
GAINESVILLE, FL 32609-1923  
[www.kooglerassociates.com](http://www.kooglerassociates.com)  
352.377.5822

Sent via Email: [Michell.M.Smith@dep.state.fl.us](mailto:Michell.M.Smith@dep.state.fl.us)

Michell Smith  
Florida Department of Environmental Protection  
Division of Waste Management - Solid Waste Section  
2600 Blair Stone Road MS 4565  
Tallahassee, Florida 32399 – 2400

RE: Annual Cost Estimate for Titan America – Pennsuco Tire Processing Facility  
FDEP File No. WT13-0134354-001/WACS No. 100946

Dear Mr. Smith:

On behalf of Titan America, Koogler and Associates, Inc., is submitting the enclosed annual cost estimate update for the Titan America Pennsuco Tire Processing Facility as required by permit WT13-0134354-001, Section 2. B. G. 2 – Annual Cost Estimates and Chapter 62-711.500 F.A.C., Waste Tire Site Notification and Requirements. Enclosed with this submittal are the following documents:

- Closing cost estimate signed and sealed by a Florida licensed Professional Engineer;
- Third party cost estimate for the removal and disposal of tires; and
- Completed and executed Closing Cost Estimating Form for Solid Waste Facilities, FDEP Form 62-701.900(28).

This updated estimate documents that the current Guarantee Bond secured by a Trust Fund Agreement of \$29,513.76 exceeds the estimated closing costs and is therefore in compliance with Chapter 62-711.500 F.A.C. Please also note that Koogler is in the process of preparing the permit renewal application which is due by 11/25/2017. If you have any questions regarding this submittal, please contact me at (352) 377-5822 or [treed@kooglerssociates.com](mailto:treed@kooglerssociates.com).

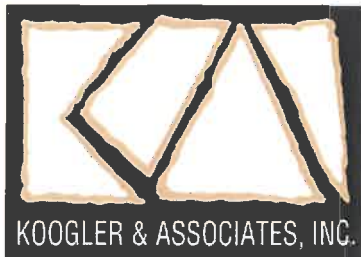
Best regards,

Tammy L. Reed  
Environmental Scientist II

/tlr

Enclosures

cc: Tor Bejnar – FDEP Financial Assurance Subsection (Email)  
Maxwell R. Lee – Koogler and Associates, Inc. (Email)  
Monica Cardona and William Kissel – Titan America (Email)



KOOGLER & ASSOCIATES, INC.  
4014 NORTH WEST 13<sup>th</sup> STREET  
GAINESVILLE, FL 32609-1923  
[www.kooglerassociates.com](http://www.kooglerassociates.com)  
352.377.5822

654-17-11  
September 15, 2017

**Titan America - Pennsuco Tire Processing Facility  
FDEP File No. WT13-0134354-001/WACS No. 100946**

**Closing Cost Estimate  
September 2017**

The purpose of this submittal is to fulfill the requirements of Rule 62-711.500(3) F.A.C., to provide a re-estimate of the annual closing costs for tires at the Titan American Pennsuco tire Processing Facility. Koogler and Associates, Inc. is providing this closing cost estimate for the cost to remove, process, and dispose of the maximum amount of waste tires that is permitted to be stored at the facility at any time.

**ESTIMATED CLOSING COSTS:**

**Waste Tire Disposal**

The estimated cost to remove, process, and dispose of the maximum permitted amount of waste tires stored at the facility at any time (30,000 tires/300 tons) is as follows:

Hauling is \$250.00 per haul @ 13 hauls =	\$ 3,250
Disposal is \$ 85.00 per ton @ 300 tons =	\$25,500
Delivery =	\$ 200
<b>Total =</b>	<b>\$28,950</b>

This cost estimate is backed by a third party cost estimate from Republic Services (attached).

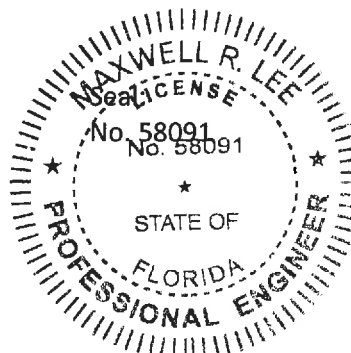
**Professional Engineer Certification:**

Signature

Date

9/15/17

Maxwell R. Lee, Ph.D., P.E.  
Koogler and Associates, Inc.  
4014 NW 13th Street  
Gainesville, FL 32609  
352-377-5822





**REPUBLIC**  
**SERVICES**

18500 North Allied Way Phoenix, AZ 85054  
o 713-548-3814 f 832-202-2019 republicservices.com  
prusso-reidler@republicservices.com

September 14, 2017

Monica Cardona  
Environmental Manager  
Titan-Pennsuco

Dear Ms. Cardona;

Per your request, Republic Services is pleased to provide the following for waste tire removal and disposal at the kiln in Medley, Florida.

30 yard open top container:

- ☑ \$250.00 per haul
- ☑ \$85.00 per ton disposal
- ☑ \$200.00 Delivery

Terms and conditions of our national account master service agreement apply.  
Please let me know if you need additional information or if you have any questions.

Thank you for choosing Republic Services  
Sincerely,

Paula Russo-Reidler  
Senior National Accounts Manager  
Manufacturing and Environmental Services



# 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 Pkwy.  
Tempe 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](http://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:	Current Year Inflation Factor, e.g. 1.02	Inflation Adjusted Closing Cost Estimate:
_____	_____	_____
	x	=

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

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

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
<b>1. Proposed Monitoring Wells (Do not include wells already in existence.)</b>				
	EA			
			Subtotal Proposed Monitoring Wells:	
<b>2. Slope and Fill (bedding layer between waste and barrier layer):</b>				
Excavation	CY			
Placement and Spreading	CY			
Compaction	CY			
Off-Site Material	CY			
Delivery	CY			
			Subtotal Slope and Fill:	
<b>3. Cover Material (Barrier Layer):</b>				
Off-Site Clay	CY			
Synthetics - 40 mil	SY			
Synthetics - GCL	SY			
Synthetics - Geonet	SY			
Synthetics - Other (explain) _____				
			Subtotal Cover Material:	
<b>4. Top Soil Cover:</b>				
Off-Site Material	CY			
Delivery	CY			
Spread	CY			
			Subtotal Top Soil Cover:	
<b>5. Vegetative Layer</b>				
Sodding	SY			
Hydroseeding	AC			
Fertilizer	AC			
Mulch	AC			
Other (explain) _____				
			Subtotal Vegetative Layer:	
<b>6. Stormwater Control System:</b>				
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
<b>7. Passive Gas Control:</b>				
Wells	EA	_____	_____	_____
Pipe and Fittings	LF	_____	_____	_____
Monitoring Probes	EA	_____	_____	_____
NSPS/Title V requirements	LS	1	\$0.00	_____
Subtotal Passive Gas Control:				_____
<b>8. Active Gas Extraction Control:</b>				
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:				_____
<b>9. Security System:</b>				
Fencing	LF	_____	_____	_____
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
Subtotal Security System:				_____
<b>10. Engineering:</b>				
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
<b>11. Professional Services</b>					
	<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
<b>1. Groundwater Monitoring [62-701.510(6), and (8)(a)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Groundwater Monitoring:				_____
<b>2. Surface Water Monitoring [62-701.510(4), and (8)(b)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Surface Water Monitoring:				_____
<b>3. Gas Monitoring [62-701.400(10)]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Subtotal Gas Monitoring:				_____
<b>4. Leachate Monitoring [62-701.510(5), (6)(b) and 62-701.510(8)c]</b>				
Monthly	12	_____	_____	_____
Quarterly	4	_____	_____	_____
Semi-Annually	2	_____	_____	_____
Annually	1	_____	_____	_____
Other (explain) _____	_____	_____	_____	_____
Subtotal Leachate Monitoring:				_____

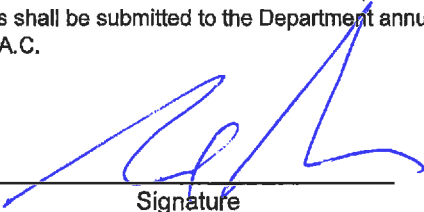
Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>5. Leachate Collection/Treatment Systems Maintenance</b>				
<u>Maintenance</u>				
Collection Pipes	LF	_____	_____	_____
Sumps, Traps	EA	_____	_____	_____
Lift Stations	EA	_____	_____	_____
Cleaning	LS	1	_____	_____
Tanks	EA	_____	_____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

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>5. (continued)</b>				
<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:	_____
<b>6. Groundwater Monitoring Well Maintenance</b>				
Monitoring Wells	LF	_____	_____	_____
Replacement	EA	_____	_____	_____
Abandonment	EA	_____	_____	_____
			Subtotal Groundwater Monitoring Well Maintenance:	_____
<b>7. Gas System Maintenance</b>				
Piping, Vents	LF	_____	_____	_____
Blowers	EA	_____	_____	_____
Flaring Units	EA	_____	_____	_____
Meters, Valves	EA	_____	_____	_____
Compressors	EA	_____	_____	_____
Flame Arrestors	EA	_____	_____	_____
Operation	LS	<u>1</u>	_____	_____
			Subtotal Gas System Maintenance:	_____
<b>8. Landscape Maintenance</b>				
Mowing	AC	_____	_____	_____
Fertilizer	AC	_____	_____	_____
			Subtotal Landscape Maintenance:	_____
<b>9. Erosion Control and Cover Maintenance</b>				
Sodding	SY	_____	_____	_____
Regrading	AC	_____	_____	_____
Liner Repair	SY	_____	_____	_____
Clay	CY	_____	_____	_____
			Subtotal Erosion Control and Cover Maintenance:	_____
<b>10. Storm Water Management System Maintenance</b>				
Conveyance Maintenance	LS	<u>1</u>	_____	_____
			Subtotal Storm Water Management System Maintenance:	_____
<b>11. Security System Maintenance</b>				
Fences	LS	<u>1</u>	_____	_____
Gate(s)	EA	_____	_____	_____
Sign(s)	EA	_____	_____	_____
			Subtotal Security System Maintenance:	_____

Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>12. Utilities</b>	LS	1		
			Subtotal Utilities:	
<b>13. Leachate Collection/Treatment Systems Operation</b>				
<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:	
<b>14. Administrative</b>				
P.E. Supervisor	HR			
On-Site Engineer	HR			
Office Engineer	HR			
OnSite Technician	HR			
Other _____				
			Subtotal Administrative:	
			<b>Subtotal of 1-14 Above:</b>	
<b>15. Contingency</b>		% of Subtotal of 1-14 Above		
			Subtotal Contingency:	
Description	Unit	Number of Units / Year	Cost / Unit	Annual Cost
<b>16. Site Specific Costs</b>				
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
			Subtotal Site Specific Costs:	
			<b>ANNUAL LONG-TERM CARE COST (\$ / YEAR):</b>	
			Number of Years of Long-Term Care:	_____
			<b>TOTAL LONG-TERM CARE COST (\$):</b>	

## 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

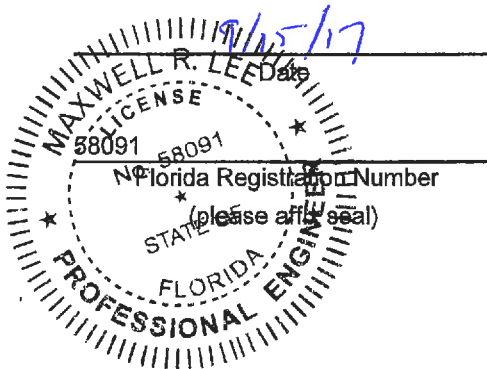
Maxwell R. Lee, Ph.D., P.E.  
\_\_\_\_\_  
Name and Title (please type)

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