

KOOGLER & ASSOCIATES, INC.
ENVIRONMENTAL SERVICES
4014 NW 13th STREET
GAINESVILLE, FL 32609-1923
www.kooglerassociates.com
352/377-5822 ■ FAX 352/377-5822

654-17-11
November 13, 2017

Sent via Email: vegajo@miamidade.gov and FedEx

Johnny Vega, P.E., Senior Professional Engineer
Department of Regulatory and Economic Resources
Division of Environmental Resources Management (DERM)
Environmental Permitting Section
701 NW 1st Court, Suite 700
Miami, FL 33136-3912

RECEIVED
DERM

NOV 17 2017

POLLUTION REGULATION
DIVISION

SW-1289

RE: Titan America LLC – Titan Pennsuco - Waste Tire Permit Renewal
Medley, Miami-Dade County, Florida
FDEP Permit No. WT13-0314354-001
WACS No. 100946

Dear Mr. Vega:

On behalf of Titan America, Koogler and Associates, Inc. is submitting this application package to renew the Titan America Pennsuco Complex Waste Tire Processing Permit. The current permit expires on January 11, 2018.

A copy of this application package is being submitted electronically and one hard copy is being mailed to your attention. The permit application fee of \$1250 is enclosed with the hard copy. If you have any questions regarding this submittal, please contact me at (352) 377-5822 or treed@kooglerssociates.com.

Best regards,

Tammy L. Reed
Environmental Scientist II

/tlr
Enclosure

cc: William Kissell – Titan America (Email: WKissell@titanamerica.com)
Maxwell R. Lee, Ph.D., P.E. – Koogler and Associates, Inc. (Email: mlee@kooglerassociates.com)
FDEP – Solid Waste Financial Coordinator (Email: Solid.Waste.Financial.Coordinator@dep.state.fl.us)



Florida Department of Environmental Protection

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

[Reset Form](#)[Print Form](#)

DEP Form # 62-701.900(23)
Form Title: Waste Tire Processing
Facility Permit Application

Effective Date: January 6, 2010
Incorporated in Rule 62-711.530(6)

Waste Tire Processing Facility Permit Application

Permit No. WT13-0314354-001

Renewal ☒ Modification ☐ Existing unpermitted facility ☐ Proposed new facility ☐

Part I-General Information:

A. Applicant Information:

1. Applicant Name: Titan America, LLC
2. Applicant Street Address: 11000 NW 121 Way
3. City: Medley County: Miami-Dade Zip: 33178
4. Applicant Mailing Address: Same as above
5. City: _____ County: _____ Zip: _____
6. Contact person: William Kissel Phone: (305)200-1669 FEID No: 510405873
7. Have any enforcement actions been taken by the Department against the applicant relating to the operation of any solid waste management facility in this state? This includes any Complaint, Notice of Violation, or revocation of a permit or registration, as well as any Consent Order in which a violation of Department rules is admitted. It does not include a Warning Letter, Warning Notice, Notice of Noncompliance, or other similar document which does not constitute agency action.
Yes ☐ No ☒ If yes, attach a history and description of the enforcement actions.

B. Facility Information:

1. Facility Name: Titan - Pennsuco Complex Tire Processing Facility
2. Facility Street Address (Main Entrance): 11000 NW 121 Way
3. City: Medley County: Miami-Dade Zip: 33178
4. Facility Mailing Address: Same as above
5. City: _____ State: _____ Zip: _____
6. Contact Person: William Kissel Phone: (305)200-1669
7. Facility Location Coordinates:
Section: 31 Township: 52S Range: 40E
Latitude: 25 52' 26" Longitude: 80 22' 20"
8. Anticipated date for starting construction NA and for completion of construction NA
9. Anticipated date for receipt of tires NA and for start of processing NA

**Mail completed form to
appropriate district office listed below**

Northwest District
160 Government Center
Pensacola, FL 32501-5794
850-595-8360

Northeast District
7825 Baymeadows Way, Ste. 200 B
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
Tempe Terrace, FL
813-632-7600

South District
2295 Victoria Ave., Ste. 364
Fort Myers, FL 33902-2549
239-332-6975

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

C. Land Owner Information (if different from applicant):

1. Owner's name: NA
2. Land owner's mailing address: _____
3. City: _____ State: _____ Zip: _____
4. Authorized Agent: _____ Agent's phone () _____
5. Current lease expires: _____

D. Facility Operator Information (if different from applicant):

1. Operator's name: Same as applicant
2. Operator's mailing address: _____
3. City: _____ State: _____ Zip: _____
4. Contact person: _____ Phone: () _____

E. Preparer of Application:

1. Name of person preparing application: Maxwell R. Lee, Ph.D., P.E. - Koogler and Associates, Inc.
2. Mailing address: 4014 NW 13th Street
3. City: Gainesville State: FL Zip: 32609
4. Phone: (352)377-5822
5. Affiliation with facility: Environmental Consultant - Project Engineer

Part II-Operations:

A. Facility type (check appropriate box):

- ☐ Waste tire processing facility.
- ☐ Waste tire processing facility with on-site disposal of processed tires or processing residuals.
- ☒ Waste tire processing facility with on-site consumption of waste tires or processing residuals.
- ☐ Permitted solid waste management facility modification to allow waste tire site and processing.

B. Type of processing facility (check as many as apply):

- ☐ Shredder ☐ Cutter ☐ Chopper ☐ Incinerator only ☐ Incinerator with energy recovery
- ☐ Pyrolysis ☒ Supplemental fuel user ☐ Other, explain _____

C. Storage: Indicate the maximum quantities of whole waste tires, processed waste tires, and processing residuals, expressed in tons, to be stored at the facility, in accordance with Rule 62-711.530(2), F.A.C.

	Outdoor Storage(tons)	Outdoor Storage (sq. ft)	Indoor Storage (tons)	Indoor Storage (sq. ft)	Total Storage (tons)
Whole waste tires:	_____	_____	<u>300</u>	_____	<u>300</u>
Processed tires:	_____	_____	_____	_____	_____
Processing residuals:	_____	_____	_____	_____	_____
TOTALS:	_____	_____	<u>300</u>	_____	<u>300</u>

- D. For reporting quantity of tires in tons, tires will be: weighed on site ☒ weighed off site ☐
weights will be calculated ☐
- E. Facilities that will not be disposing of processed tires or processing residual on the facility site must indicate the permitted solid waste management facility where processed tires or residuals will be disposed.

1. Name of facility NA - tires are consumed by kiln

2. Street address: _____

3. City: _____ County: _____ Zip: _____

- F. Facilities that will be delivering processed tires to consuming facilities must describe the existing or proposed markets for those processed tires.

NA

Part III-Attachments:

A. Facility design

NOTE: All maps, plan sheets, drawings, isometrics, cross sections, or aerial photographs shall be legible; be signed and sealed by a registered professional engineer responsible for their preparation; be of appropriate scale to show clearly all required details; be numbered, referenced to narrative, titled, have a legend of symbols used, contain horizontal and vertical scales (where applicable), and specify drafting or origination dates; and use uniform scales as much as possible, contain a north arrow and use NGVD for all elevations.

1. A topographic or section map of the facility, including the surrounding area for one mile, no more than one year old, showing land use and zoning within one mile of the facility
2. A plot plan of the facility on a scale of not less than one inch equals 200 feet. At a minimum, the plot plan shall include
 - a. The facility design, including the location and size of all storage and processing areas for used tires, unprocessed waste tires, processed waste tires, and waste tire processing residuals;
 - b. All wetlands and water bodies within the facility or within 200 feet of any storage area;
 - c. Stormwater control measures, including ditches, dikes, and other structures;
 - d. Boundaries of the facility, legal boundaries of the land containing the facility, and any easements or rights of way that are within the facility or within 200 feet of any storage area;
 - e. Location, size, and depth of all wells within the facility or within 200 feet of any storage area;
 - f. All structures and buildings that are, or will be, constructed at the facility; include those used in storage and processing operations;
 - g. All areas used for loading and unloading;
 - h. All access roads and internal roads, including fire lanes;
 - i. Location of all fences, gates, and other access control measures; and
 - j. Location of all disposal areas within the facility.

B. Facility operation.

1. A description of the facility's operation, process and products including how waste tires will be received and stored.
2. A description of the equipment used for processing tires. This description shall include the make, model, and hourly capacity of each piece of equipment.
3. Description of the waste from the process, the amount of waste expected and how and where this waste will be disposed of.
4. Statement of the maximum daily throughput and the planned daily and annual throughput.
5. A description of how the operator will maintain compliance with each of the storage requirements of Rule 62 - 711.540, F.A.C.
6. A copy of the emergency preparedness manual for the facility with a statement of the on site and off site locations where that manual will be maintained.
7. A copy of the fire safety survey
8. A description of how 75% of the annual accumulation of waste tires will be removed for disposal or recycling.

- C. Completed closing plan for the facility as required by Rule 62-711.700(2) and (3), F.A.C.

- D. Attach proof of financial responsibility as requirement by Rule 62-711.500(3) OR a calculation showing that financial assurance documents, currently on file with the Department, are sufficient to assure closing of the waste tire site as well as any other solid waste management facility at that location.
- E. A letter from the land owner (If different from applicant) authorizing use of the land as a waste tire processing facility.
- F. If waste tires will be consumed or disposed of at the facility, attach a description of the other environmental permits that the applicant has for this use, including, permit number, date of issue, and name of issuing agency
- G. The permit fee as required in Rule 62-4, F.A.C.

Part IV-Certification:

A. Applicant:

The undersigned applicant or authorized representative of Titan America - Pennsuco
is aware that statements made in this form and attached information are an application for a
Tire Processing Permit from the Florida Department of Environmental Protection and certifies that
The information in this application is true, correct and complete to the best of his knowledge and belief.
Further, the undersigned agrees to comply with the provisions of Chapter 403, Florida Statutes, and all rules and
regulations of the Department. It is understood that the Department will be notified prior to the sale or legal transfer
of the facility.

Signature of Applicant or Authorized Agent

William Kissel - Sr. Env. Manager
Name and Title

11/9/17
Date

B. Professional Engineer registered in Florida.

This is to certify that the engineering features of this waste tire processing facility have been
Designed/examined by me and found to conform to engineering principals applicable to such facilities. In my
professional judgment, this facility, when properly maintained and operated will comply with all applicable statutes of
the State of Florida and rules of the Department. It is agreed that the undersigned will provide the applicant with a
set of instructions for proper maintenance and operation of the facility.

Signature

4014 NW 13th Street

Mailing Address

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

Name and Title

Gainesville, FL 32609

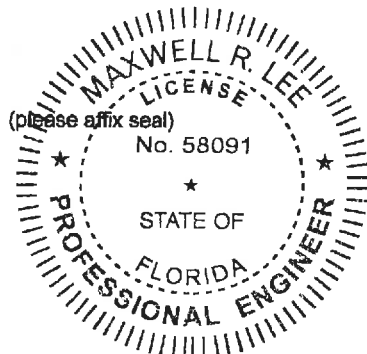
City, State, Zip

58091

Florida Registration Number

352-377-5822

Telephone number



11/13/17
Date

Attachment 1

Waste Tire Processing Facility Permit Renewal Application

Part I – General Information

A.7. Have any enforcement actions been taken by the Department against the applicant relating to the operation of any solid waste management facility in this state? **No enforcement actions have been taken by the Department since issuance of the current permit.**

Part III – Attachments

A. Facility Design

- 1) A topographic or section map of the facility, including the surrounding area for one mile, no more than one year old, showing land use and zoning within one mile of the facility. **See USGS Topographic Map and Miami Dade County Property Appraiser Parcel Map and Card provided as Figures 1 and 2A and B in Appendix A.**
- 2) A plot plan of the facility on a scale of not less than one inch equals 200 feet. *For sub-items a through j:* **No changes are proposed for the facility with this application. See Appendix A, Figure 3 for the plot plan on an updated aerial photograph.**

B. Facility Operation

For sub-items 1 through 5 & 8: **No changes are proposed for the facility with this application. A Plan of Operations is provided as Appendix B, which has been separated from the application package submitted in 2012.**

Item 6. **The Emergency Response Manual for the facility has been updated and is provided in Appendix C. Copies are currently located at:**

**Titan American – Pennsuco Complex
11000 NW 121st Way
Medley, FL 33178**

And

**Koogler and Associates, INC.
4014 NW 13th Street
Gainesville, FL 32609**

Item 7. **A copy of the latest fire safety survey is provided in Appendix D.**

- C. Completed closing plan for the facility as required by Rule 62-711.700(2) and (3), FAC. **Rule 62-711.700(2) and (3) were repealed on February 16, 2012 and subsumed by Chapter 62-**

711.500(3) F.A.C. Therefore the required closing cost estimates and financial assurance as required by the applicable sections of the current Rule 62-711.500(3) are provided in Appendix E.

Updated financial assurance was provided on September 15, 2017 and was approved on September 20, 2017. A copy of the updated financial assurance and revised closing cost estimates including a third party estimate are provided in Appendix E. The current financial assurance is sufficient to cover the updated closing cost estimates.

- D. Attach proof of financial responsibility as requirement by Rule 62-711.500(3) OR calculation showing that financial assurance documents, currently on file with the Department, are sufficient to assure closing of the waste tire site as well as any other solid waste management facility at that location. See a copy of the current Financial Assurance approval provided in Appendix E.**
- E. A letter from the land owner (if different from applicant) authorizing use of the land as a waste tire processing facility. The applicant is the land owner.**
- F. If waste tires will be consumed at the facility, attach a description of the other environmental permits that the applicant has for this use, including permit number, date of issue, and name of issuing agency. See Other Environmental Permits provided in Appendix F.**
- G. The permit fee as required in Rule 62-4, FAC. The applicable permit fee is \$1,250 and a check for that amount is enclosed.**

Titan America, LLC
Pennsuco Complex
Waste Tire Processing – Permit No. WT13-0314354-001

KA 654-17-11
November 13, 2017

ATTACHMENT 1

Supporting Information

APPENDIX A

Figures 1, 2 and 3

Topographic Map, Property Appraiser Map and Card and Plot Plan



OFFICE OF THE PROPERTY APPRAISER

Summary Report

Generated On : 11/6/2017

Property Information	
Folio:	30-2031-001-0010
Property Address:	11000 NW 121 WAY Miami, FL 33178-1009
Owner	TARMAC FLA INC
Mailing Address	1151 AZALEA GARDEN RD NORFOLK, VA 23502
PA Primary Zone	7600 INTENSIVE USE
Primary Land Use	4731 MINERAL PROCESSING : MINERAL PROCESSING
Beds / Baths / Half	0 / 0 / 0
Floors	2
Living Units	0
Actual Area	422,976 Sq.Ft
Living Area	Sq.Ft
Adjusted Area	422,976 Sq.Ft
Lot Size	10,620,694.66 Sq.Ft
Year Built	1962



Assessment Information			
Year	2017	2016	2015
Land Value	\$25,588,266	\$23,365,529	\$25,656,347
Building Value	\$4,885,978	\$4,676,239	\$4,384,802
XF Value	\$877,405	\$887,519	\$896,945
Market Value	\$31,351,649	\$28,929,287	\$30,938,094
Assessed Value	\$31,351,649	\$28,929,287	\$30,938,094

Benefits Information				
Benefit	Type	2017	2016	2015
Note: Not all benefits are applicable to all Taxable Values (i.e. County, School Board, City, Regional).				

Short Legal Description	
31 52 40 243.8176 AC M/L	
SUB OF PB 2-17-3	
ALL OF SEC LESS PORT OF TRS 1	
THRU 8 DESC BEG NE COR OF SEC TH	
W1352.43FT S450FT E686.31FT	

Taxable Value Information			
	2017	2016	2015
County			
Exemption Value	\$0	\$0	\$0
Taxable Value	\$31,351,649	\$28,929,287	\$30,938,094
School Board			
Exemption Value	\$0	\$0	\$0
Taxable Value	\$31,351,649	\$28,929,287	\$30,938,094
City			
Exemption Value	\$0	\$0	\$0
Taxable Value	\$0	\$0	\$0
Regional			
Exemption Value	\$0	\$0	\$0
Taxable Value	\$31,351,649	\$28,929,287	\$30,938,094

Sales Information			
Previous Sale	Price	OR Book-Page	Qualification Description

The Office of the Property Appraiser is continually editing and updating the tax roll. This website may not reflect the most current information on record. The Property Appraiser and Miami-Dade County assumes no liability, see full disclaimer and User Agreement at <http://www.miamidade.gov/info/disclaimer.asp>

Version:

Figure 2A

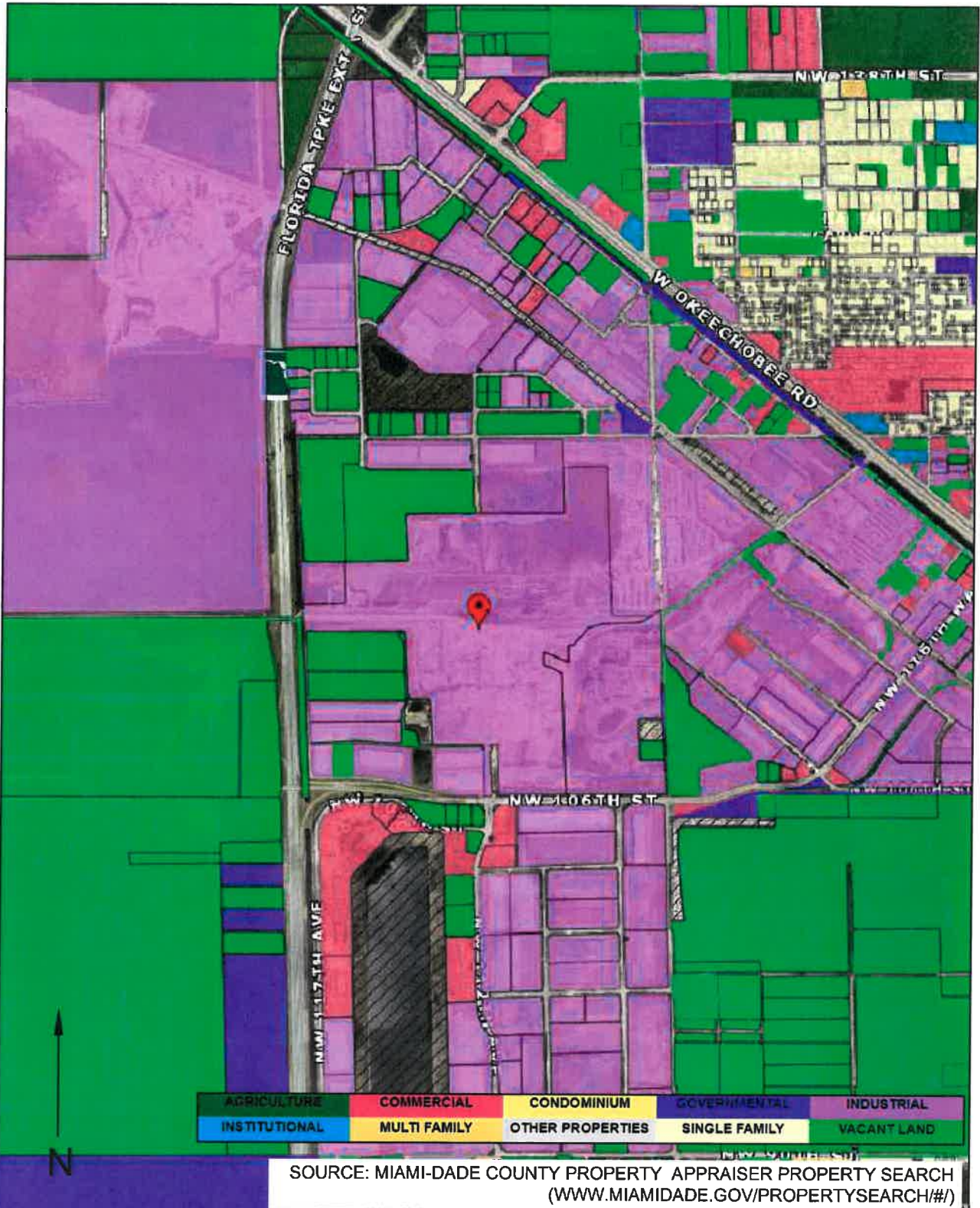
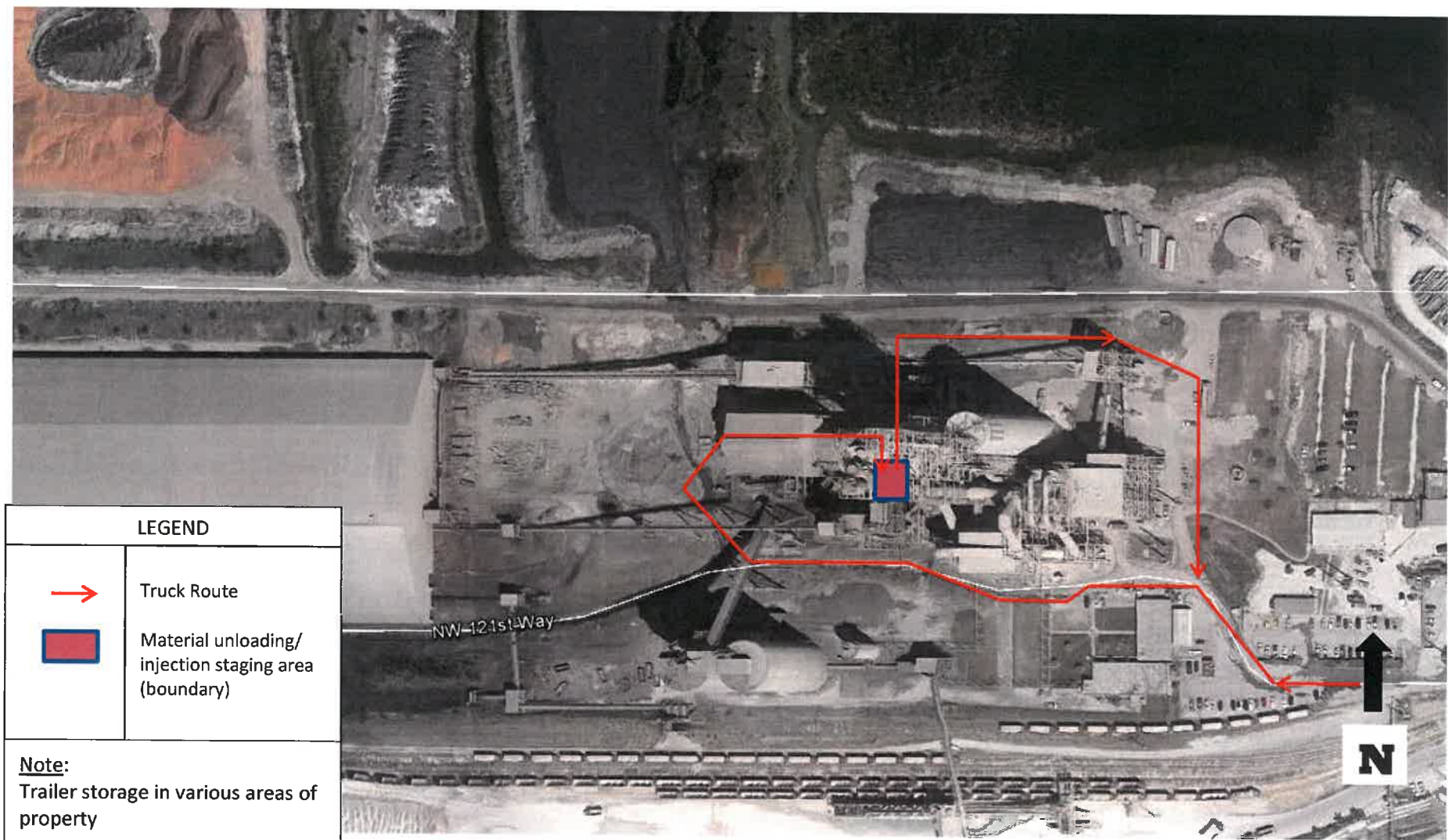
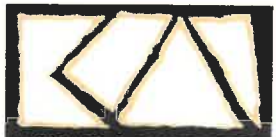


FIGURE 2B. PROPERTY APPRAISER MAP- LAND USE
TITAN AMERICA PENNSUCO COMPLEX-
WASTE TIRE PERMIT RENEWAL
1100 NW 121 WAY
MEDLEY, MIAMI-DADE COUNTY FL 33178

KOOGLER & ASSOCIATES
 ENVIRONMENTAL SERVICES
 4014 NW 13TH STREET
 GAINESVILLE, FLORIDA 32609
 DWG. BY: V. WARGER (REV)
 FILE NAME:
 FIG_2B_LAND_USE_2017_11_06.DWG





Professional Engineer Certification <hr/> Maxwell R. Lee, Ph.D., P.E. Date P.E. No. 58091	Scale 1" = 200' <hr/> Aerial from Google earth Image date 03/21/2017 Drawing No. 654-17-11	<p align="center">Figure 3 – Plot Plan</p> <p align="center">Tire Processing Permit WT13-0314354-001</p> <p align="center">Titan America - Pennsuco</p> <p align="center">11000 NW 121 Way</p> <p align="center">Medley, Miami-Dade County, FL</p>	 <p align="center">KOOGLER & ASSOCIATES ENVIRONMENTAL SERVICES 4014 NW THIRTEENTH STREET GAINESVILLE, FLORIDA 32609 352/377-5822 • FAX 377-7158</p>
--	---	--	--

Titan America, LLC
Pennsuco Complex
Waste Tire Processing – Permit No. WT13-0314354-001

KA 654-17-11
November 13, 2017

APPENDIX B

Plan of Operations

PLAN OF OPERATIONS

WHOLE TIRE PROCESSING FACILITY – PERMIT RENEWAL APPLICATION
PER 62-711, F.A.C.

TITAN AMERICA – PENNSUCO COMPLEX

11000 NW 121 Way
Medley, Miami-Dade County, FL 33198

Renewal of WT13-0314354-001
WACS #100946

Application Date: November 13, 2017

Consultant:

Maxwell R. Lee, Ph.D., P.E.
Tammy Reed, Environmental Scientist II
Koogler and Associates, Inc.
4014 NW 13th Street
Gainesville, Florida 32609-1923
(352) 377-5822

TABLE OF CONTENTS

1.0	FACILITY OPERATION	1
2.0	EQUIPMENT DESCRIPTION	2
	Figure 1. Whole Tire Chute into the Base of the Preheater Tower	2
3.0	WASTES FROM PROCESS.....	3
4.0	PROCESS THROUGHPUT	3
5.0	STORAGE REQUIREMENTS.....	3
6.0	EMERGENCY PREPAREDNESS MANUAL.....	4
7.0	FIRE SAFETY SURVEY	4
8.0	DISPOSAL/RECYCLING PRACTICES.....	4

INTRODUCTION

This Plan is submitted as part of the application for renewal of this Solid Waste Tire Processing permit under rule 62-711, FAC specifically per 62-711.530(6) using Form 62-701.900(23). The enclosed information is provided per 62-711 permit application requirements as reference in the FDEP rules. Unlike solid waste facilities under 62-701, FAC, Waste Tire Processing (WTP) facilities are not required to submit Operation plans and Contingency plans per 62-701.710(2)(e) and (g), FAC.. The information provided below is of a similar nature and structure of Operations and Contingency Plans under 62-701, FAC.

The WTP permit application forms list the required specific information of operations shown below. Item 6. addresses contingencies and emergencies through an Emergency Preparedness Manual.

Facility operation.

1. *A description of the facility's operation, process and products including how waste tires will be received and stored.*
2. *A description of the equipment used for processing tires. This description shall include the make, model, and hourly capacity of each piece of equipment.*
3. *Description of the waste from the process, the amount of waste expected and how and where this waste will be disposed of.*
4. *Statement of the maximum daily throughput and the planned daily and annual throughput.*
5. *A description of how the operator will maintain compliance with each of the storage requirements of Rule 62-711.540, F.A.C.*
6. *A copy of the emergency preparedness manual for the facility with a statement of the on site and off site locations where that manual will be maintained.*
7. *A copy of the fire safety survey*
8. *A description of how 75% of the annual accumulation of waste tires will be removed for disposal or recycling.*

1.0 FACILITY OPERATION

A description of the facility's operation, process and products including how waste tires will be received and stored.

Covered or enclosed trailers are used to deliver and store whole tires. When tires are to be used in the pyroprocessing process, tires will be transported from the covered or

enclosed trailers to the designated injection system via a roller cart and utilized in the pyroprocessing system at a controlled rate of injection.

The flow of tires from delivery to use will be as follows:



Titan America personnel working with the tire system will receive training on the proper operation of the system. This will include, but is not limited to, training on safety interlocks, location of all emergency stops, location of electrical disconnects and how to unplug material from the system. In addition, the operators will receive fire safety training as part of employee training.

2.0 EQUIPMENT DESCRIPTION

A description of the equipment used for processing tires. This description shall include the make, model, and hourly capacity of each piece of equipment.

The whole tire injection system consists of a hand-fed chute that drops whole tires into the pyroprocessing system at the base of the preheater tower (see Figure 1 below). Whole tires will be fed at a rate in accordance with Titan America's air permit or other limitation. Based on the design of the kiln the rate of tire feed is typically 1 to 3 tph. Because the kilns demand a constant heat source the tires should be fed at as consistent a feed rate as possible.

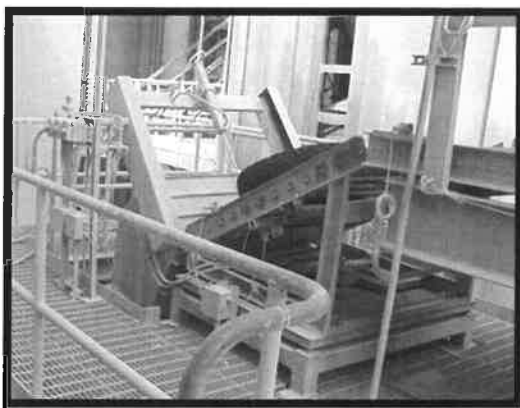


Figure 1. Whole Tire Chute into the Base of the Preheater Tower

3.0 WASTES FROM PROCESS

Description of the waste from the process, the amount of waste expected and how and where this waste will be disposed of.

The whole tires used in the process serve as a fuel and raw material (ingredient), and because any ash from the process is also incorporated as an ingredient in the final product there is no solid waste generated from this process.

4.0 PROCESS THROUGHPUT

Statement of the maximum daily throughput and the planned daily and annual throughput.

- The maximum storage on-site at any time will be 300 tons.
- The maximum daily throughput will be in accordance with other permit limits, or the practical limitations of the kiln system, which is 96 tons per day.
- The planned daily throughput will be 96 tons per day.
- The planned annual throughput will be 35,040 tons per year.

5.0 STORAGE REQUIREMENTS

A description of how the operator will maintain compliance with each of the storage requirements of Rule 62-711.540, F.A.C.

Due to the nature of this particular operation, many of the storage requirements in Rule 62-711.540, F.A.C., do not apply. This Tire Facility does not receive tires from the public and does not store tires in large piles. Tires are only hand-fed to the pyroprocessing system on an as-needed basis.

Open-flame activities will not be conducted within 25 feet of a tire pile. Local fire agencies will be notified of the Tire Facility (use of tires at the site as a fuel and ingredient) and a fire safety survey will be conducted annually, and included in the following quarterly report that is required per 62-711.530(5), F.A.C. to be submitted to the Department. In the case of a tire fire posing an unanticipated threat to the public or environment, the operator will immediately notify the Department and will submit a

written report to the Department per 62-711.540(1)(f) describing the origin of the emergency, actions that were taken to deal with the emergency, results of those actions, and an analysis of the success or failure of those actions, to the Department within two weeks. Given the storage limit amount of tires (300 tons), the potential for such tire fires is limited.

Per the requirements of 62-711.540(1)(i) - communication equipment (i.e., a phone) required to notify local fire protection authorities will be maintained.

A record of the quantity of tires received and stored at the Tire Facility will be maintained. Mosquito and rodent control will be provided as necessary.

6.0 EMERGENCY PREPAREDNESS MANUAL

A copy of the emergency preparedness manual for the facility with a statement of the on site and off site locations where that manual will be maintained.

A copy of the Emergency Preparedness Manual (aka Emergency Response Plan) will be maintained on site (see Appendix C of the renewal application package).

7.0 FIRE SAFETY SURVEY

A copy of the fire safety survey.

A copy of the most recent Fire Safety Survey is included in Appendix D of the renewal application package.

8.0 DISPOSAL/RECYCLING PRACTICES

A description of how 75% of the annual accumulation of waste tires will be removed for disposal or recycling.

In this cement production operation, 100% of the tires will be used on-site as supplemental fuel and ingredient in the production of cement. The kiln under normal operation consumes about 1 to 3 tph of tires. Kilns are designed to operate 24/7. Thus when tires are fed to the kiln, the rate of consumption is such that at a minimum 24 tons per day are consumed. Under the minimal rate of 1 tph consumed and the limit of 300 tons of storage allowed 300 tons of tires (total allowed storage) will be consumed within

less than one month or 12 turnovers of total storage per year is not uncommon when tires are available. Tires are an excellent fuel source replacement for fossil fuels, typically coal or pet coke. If financial market conditions are right for tires to be used as a fuel, the tires are quickly consumed. There is no economic incentive to not use the tires for fuel. Thus, the Agency has assurance by more than environmental regulation requirements that the tires will not be accumulated by more than 75% on an annual basis.

Titan America, LLC
Pennsuco Complex
Waste Tire Processing – Permit No. WT13-0314354-001

KA 654-17-11
November 13, 2017

APPENDIX C

Emergency Response Manual

EMERGENCY RESPONSE
Quick Reference Guide



Facility Name: <u>Pennsuco</u>	Designated Responsible Official: <u>Vanessa Rodriguez</u>
Facility Address: <u>11000 NW 121 Way</u>	Emergency Coordinator: <u>Alfredo DeLaCadena</u>
Facility Phone: <u>305-364-2200</u>	DATE PREPARED: <u>November 2017</u>

Purpose

Our organizational values dictate that Titan America provide for the protection of life, health, and property during emergencies. This guide aims to provide quick and simple guidance during emergencies until professional help is obtained. Everyone is expected to read, understand, and carry out the steps in this guide during emergencies.

Notice

When appropriate, there may be deviations from the steps in this guide due to changes in personnel, policies, interpretation, law, and experimentation with alternative processes, or simply evolution of the process itself. Everyone is encouraged to review this guide and suggest changes to keep it current and minimize differences between the guide and actual practices. This guide may be updated at any time and will reflect a "revised" date on the affected tab(s). Your personal action and safety are your responsibility.

EMERGENCY RESPONSE
Quick Reference Guide



The Designated Responsible Official or Emergency Coordinator may ask these persons to remain on site to perform critical assignments during emergencies:

Name	Work area	Job title	Assignment description
Sam Ricketts	Cement	Cement Production Manager	Cement Plant
Joe Cardoso	Cement	Process Supervisor	Cement Plant
Jesus Mora	Aggregate	Quarry Superintendent	Aggregate Plant
Ruben Terrazas	Aggregate	Mining Engineer III	Aggregate Plant
Kris Menon	Cement/Aggregate	Electrical Maintenance Manager	Plant Electrical
Richard Dempsey	MEG	MEG Manager	Heavy Equipment

If the listed persons are unable to remain at their work area, the Designated Responsible Official or Emergency Coordinator must notify these offices for support:

Name and Location: PennK5 Control Room
Phone Number: (305) 200-1642

Name and Location: Aggregate Supervisors Office
Phone Number: (305) 827-7478

Name and Location: Guardhouse
Phone Number: (305) 556-3809

EMERGENCY RESPONSE
Quick Reference Guide



Emergency Numbers	Utility Numbers	Personnel Numbers
Fire Department: 911	Electric Company: 800-226-3545	Designated Responsible Official: 305-609-6663
Paramedics: 911	Gas Company:	Emergency Coordinator: 305-970-3268
Ambulance: 911	Water Company: 305-592-5680	Assistant to Physically Challenged (if applicable):
Police: 911	Telephone Company: 305-347-5313	Additional Assistants:
Security: 305-556-3809	Comments:	
Building Manager (if applicable): 305-364-2250		

EMERGENCY RESPONSE Quick Reference Guide



Evacuation Routes

Evacuation route maps are posted in each work area and contain the following information:

- Primary and secondary evacuation routes
- Emergency exit locations
- Fire extinguisher locations
- Fire alarm pull station locations
- Employee assembly areas

Evacuation Guidelines

- Evacuate immediately when an evacuation notice is given
- Evacuate quietly and do not use the elevator
- Evacuate via the nearest emergency exit and stairs (down the right side of stairs)
- Account for everyone at each employee assembly area
- Move to a different employee assembly area at the request of emergency personnel

EMERGENCY RESPONSE
Quick Reference Guide



FIRST STEP

Call the appropriate emergency number(s):

- Fire Department (911)
- Paramedics (911)
- Ambulance (911)
- Other ()

Provide the following:

- Description of emergency
- Location of emergency (address, building number, etc)
- Your name and direct phone number

SECOND STEP

Do not move the person unless necessary and call the following emergency personnel for assistance:

- Name: Security, Phone: 305-556-3809
- Name: Vanessa Rodriguez, Phone: 305-609-6663
- Name: Alfredo DeLaCadena, Phone: 305-764-5447

THIRD STEP

Provide the following assistance, at a minimum, if the listed emergency personnel are unavailable:

- Apply firm pressure on the wound(s) to stop any bleeding*
- Use the Heimlich Maneuver to clear the air passages if the person is choking*

NOTE

- Provide first aid and CPR **ONLY IF** you are qualified
- Avoid contact with blood and other bodily fluids
- Review the appropriate material safety data sheet (MSDS) and wear the required personal protective equipment (PPE) if exposed to hazardous materials

EMERGENCY RESPONSE
Quick Reference Guide



FIRST STEP

- Activate the nearest fire alarm (if possible)
- Notify the fire department (911)
(provide description and location of fire, your name and direct phone number)
- Tell everyone to evacuate immediately (air horn, radio, phone, other (specify): , etc)*

LAST STEP

Fight the fire **ONLY IF**:

- The fire department was notified
- The fire is small and can be controlled with a fire extinguisher
- The fire extinguisher is working and you are qualified to use it
- Escaping the work area is possible by backing up to the nearest exit

Fire Guidelines

- Do not open doors that have a hot doorjamb or handle
- Stay low (close to the ground) if smoke is encountered
- Do not return to the work area until the Designated Responsible Official announces it is ok

NOTE

- Follow guidelines on tab 4

EMERGENCY RESPONSE Quick Reference Guide



Large Chemical Spill

- Notify the Designated Responsible Official and Emergency Coordinator
- Secure the area (caution tape or safety cones) and notify everyone (radio, email, etc)*
- Contain the spill with containment and security equipment (pads, booms, absorbent powder, etc)
- Do not clean the spill unless you are qualified to do so
- Assist injured persons if necessary (follow guidelines on tab 5)
- Call the hazardous spill cleanup company or the fire department to clean the spill

Small Chemical Spill

- Notify the Emergency Coordinator and the work area's Supervisor
- Secure the area (caution tape or safety cones)
- Review and follow the general spill cleanup procedures
- Follow the instructions on the appropriate material safety data sheet (MSDS) and wear the required personal protective equipment (PPE) to clean the spill

NOTE

- Evacuate the work area if necessary (follow guidelines on tab 4)

Spill Assistance

Hazardous spill cleanup company:

- Name: SWS First Response
- Phone: (800) 852-8878

Location of spill assistance items:

- Material Safety Data Sheets (MSDS):
Warehouse
- Personal Protective Equipment (PPE):
Warehouse
- Spill Containment and Security Equipment:
Warehouse

EMERGENCY RESPONSE Quick Reference Guide



Hurricane and Tornado

- Seek shelter made of reinforced concrete, brick or block
- Use your arms to protect your head and neck
- Stay away from doors, windows, and outer walls
- Remain at one of the following until the Designated Responsible Official announces the threat is over:
 - Small rooms on the lowest floor
 - Hallways on the lowest floor

Indoor Flood

- Evacuate immediately when an evacuation notice is given (follow guidelines on tab 4)

Outdoor Flood

- Do not walk or drive through flood water
- Climb to high ground and stay there (must do immediately if your car stalls)

Hurricane Watch Guidelines

- Wait for instructions from the Designated Responsible Official or Emergency Coordinator
- Monitor your local TV and radio station for instructions, while collecting drinking water in appropriate containers
- Secure the facility if an evacuation notice has not been given (move loose items indoor, board up windows and openings, tie up boats, etc)

Hurricane Warning Guidelines

- Evacuate immediately from low-lying areas and coastal areas at the request of public officials, the Designated Responsible Official, or the Emergency Coordinator
- Evacuate immediately from areas that may be affected by storm tides or stream flooding

EMERGENCY RESPONSE
Quick Reference Guide



BE CALM, BE COURTEOUS, LISTEN, AND DO NOT INTERRUPT THE CALLER

BEFORE the caller hangs up

- 1) Keep the caller talking if possible. Pretend difficulty hearing and ask the caller to repeat the message.
- 2) Obtain the following if the caller appears to agree to conversation (write in the space provided below):
 - When will it go off?
 - Where is it located?
 - What kind of bomb?
 - What kind of package?
 - What is your name and address?
 - How do you know so much about the bomb?

Write the message and any other comments:

AFTER the caller hangs up

- 1) Activate a malicious call trace:
 - Hang up and do not answer another line
 - Choose the same line and dial *57
 - Listen to the confirmation announcement and hang up
- 2) Call Security at (305) 827-7400 and provide the following:
 - The message and any other comments
 - Whether the caller appeared familiar with the plant or building (by location of the bomb)
- 3) Complete part 2 of this tab (tab 10) and give it to Security

Bomb Threat Guidelines

- Treat all threats seriously
- Do not touch, cover, or move any suspicious items (device, package, box, mail, etc)
- Do not use a cell phone or radio, these could set off the bomb; always use a landline
- Do not return to the work area until the Designated Responsible Official announces it is ok, if everyone is evacuated

EMERGENCY RESPONSE
Quick Reference Guide



Your Name: _____

Date: _____

Time: _____

CALLER IDENTITY SEX: Male ☐ Female ☐ CATEGORY: Adult ☐ Juvenile ☐ APPROXIMATE AGE: _____

CALL SOURCE Local ☐ Long Distance ☐ Telephone Booth ☐

VOICE

- | | |
|--------------------------------------|-----------------------------------|
| <input type="checkbox"/> Loud | <input type="checkbox"/> Soft |
| <input type="checkbox"/> High Pitch | <input type="checkbox"/> Deep |
| <input type="checkbox"/> Raspy | <input type="checkbox"/> Pleasant |
| <input type="checkbox"/> Intoxicated | <input type="checkbox"/> Other: |

SPEECH

- | | |
|-----------------------------------|------------------------------------|
| <input type="checkbox"/> Fast | <input type="checkbox"/> Slow |
| <input type="checkbox"/> Distinct | <input type="checkbox"/> Distorted |
| <input type="checkbox"/> Stutter | <input type="checkbox"/> Nasal |
| <input type="checkbox"/> Slurred | <input type="checkbox"/> Other: |

LANGUAGE

- | | |
|------------------------------------|---------------------------------|
| <input type="checkbox"/> Excellent | <input type="checkbox"/> Good |
| <input type="checkbox"/> Fair | <input type="checkbox"/> Poor |
| <input type="checkbox"/> Foul | <input type="checkbox"/> Other: |

ACCENT

- | | |
|----------------------------------|------------------------------------|
| <input type="checkbox"/> Local | <input type="checkbox"/> Not Local |
| <input type="checkbox"/> Foreign | <input type="checkbox"/> Region |
| <input type="checkbox"/> Race | |

MANNER

- | | |
|-------------------------------------|-------------------------------------|
| <input type="checkbox"/> Calm | <input type="checkbox"/> Angry |
| <input type="checkbox"/> Rational | <input type="checkbox"/> Irrational |
| <input type="checkbox"/> Coherent | <input type="checkbox"/> Incoherent |
| <input type="checkbox"/> Deliberate | <input type="checkbox"/> Emotional |
| <input type="checkbox"/> Righteous | <input type="checkbox"/> Laughing |

BACKGROUND

- | | |
|-------------------------------------|------------------------------------|
| <input type="checkbox"/> Factory | <input type="checkbox"/> Airplanes |
| <input type="checkbox"/> Machines | <input type="checkbox"/> Trains |
| <input type="checkbox"/> Office | <input type="checkbox"/> Animals |
| <input type="checkbox"/> Street | <input type="checkbox"/> Party |
| <input type="checkbox"/> Traffic | <input type="checkbox"/> Music |
| <input type="checkbox"/> Atmosphere | <input type="checkbox"/> Voices |
| | <input type="checkbox"/> Quiet |

EMERGENCY RESPONSE
Quick Reference Guide



When violence or threat of violence occurs

- Leave immediately if possible; If not possible, lock yourself in a secure area (office, bathroom, etc)
- Call 911 or Security at (305) 827-7400

Examples of violence and threat of violence

- Conduct such as pushing, shoving, or striking that harms or has the potential to harm people or property
- Oral (and written) statements, gestures, or expressions that communicate a direct or indirect threat of harm

Examples of contributing factors

- Disciplinary action, termination of employment, ongoing conflict between co-workers, and various personal issues

Violence Prevention Guidelines

- Stay aware of your immediate work environment
- Contact management when unusual or suspicious behavior is noticed
- Do not hesitate to contact security, human resources, management, or the police for help
- Consult security, human resources, or management for guidance in dealing with violence

When suspicious mail or package are received

- Do not open the envelope or package
- Isolate the envelope or package and evacuate if necessary (follow guidelines on tab 4)
- Notify the Designated Responsible Official and Emergency Coordinator

Characteristics of suspicious mail and package

- Contain timers or emit noises
- Contain powders or liquids
- Have no return address
- Have an unusual shape or weight for their size
- Have protruding wires, strange odors, or stains
- Have excessive or foreign postage
- Have awkward wrapping (several types of tapes)
- Have a return address that does not match the postmark's city or state
- Have distorted handwriting, home-made labels, or cut and pasted letters
- Are addressed to former employees (six or more months)
- Have a job title (CEO, etc) but no name
- Have restricted classifications ("Private," "Confidential," etc) but no name
- Have urgent classifications ("Rush - Do Not Delay", etc) but no name

EMERGENCY RESPONSE Quick Reference Guide



At times, members of the press may want to obtain information when an emergency occurs. Our primary objective during an emergency is to secure the health and safety of our people by 1) securing the area to ensure the condition does not pose a threat to anyone and 2) carrying out the required notifications set forth in the section(s) of this guide relevant to the emergency.

When the press calls

- Take the person's name and phone number, and state, "I will have our Company Spokesperson contact you."

When the press arrives

- Have someone monitor entrance and ensure that unauthorized persons do not gain access
- Take the person's name and phone number, and state, "There has been an emergency. We are making sure everyone is safe and are notifying the relevant parties. An investigation has been started. For more information, please contact our Communications Department."

After interacting with the press

- Notify the Communications Department via phone and email
- Provide the person's name and phone number, and any details

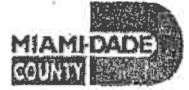
Titan America, LLC
Pennsuco Complex
Waste Tire Processing – Permit No. WT13-0314354-001

KA 654-17-11
November 13, 2017

APPENDIX D

Fire Inspection Survey

MIAMI-DADE FIRE RESCUE DEPARTMENT
FIRE PREVENTION DIVISION
9300 NW 41ST STREET
MIAMI, FLORIDA 33178



PERMIT

Below is the Annual Operating Permit issued by the
Miami-Dade Fire Rescue Department.
Should you have any questions regarding this
permit, please contact the Fire Prevention Division
at (786) 331-4800

PERMIT#:00126-00128

TARMAC AMERICA/PENNUSUCO PLANT ADMINISTRATION MAIN OFFICE
11000 NW 121ST WAY BUILDING 10
MEDLEY, FL 33178

(Please cut along dotted line and post permit in your place of business)



PERMIT CERTIFICATE

MIAMI-DADE FIRE RESCUE DEPARTMENT
ANNUAL OPERATING PERMIT
9300 NW 41 STREET
MIAMI, FLORIDA 33178
(786) 331-4800

PERMIT#:00126-00128

Permit Expires Last Date In The Month Of:
March/2018

Business Name:

TARMAC AMERICA ADMINISTRATION MAIN
OFFICE BLDG 10 / Business Offices

Business Owner / Rep:

YAISEL DIAZ

Billing Address:

TARMAC AMERICA/PENNUSUCO PLANT
ADMINISTRATION MAIN OFFICE
11000 NW 121ST WAY BUILDING 10
MEDLEY, FL 33178

Location Address:

TARMAC AMERICA ADMINISTRATION MAIN
OFFICE BLDG 10
11000 - 11000 NW 121 WAY BUILDING 10
MEDLEY, FL 33178

This Permit is issued in accordance with Article III, Section 14-53, of the code of Miami-Dade County and the South Florida Fire Prevention Code under conditions set forth herein. Violations of the aforementioned will be grounds for immediate revocation.



Permit Authorized by:

Chief Alan R. Cominsky, Fire Marshal
Miami-Dade Fire Rescue Department

APPENDIX E

Copy of Approved Closing Cost Forms

**(FDEP Form 62-701.900(28), PE Certification,
Third Party Estimate,
And Current Financial Assurance Approval)**



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



4014 NORTH WEST 13th STREET
GAINESVILLE, FL 32609-1923
www.kooglerassociates.com
352.377.5822

654-17-11
September 15, 2017

Sent via Email: 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.

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 13th STREET
GAINESVILLE, FL 32609-1923
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
Total =	\$28,950

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

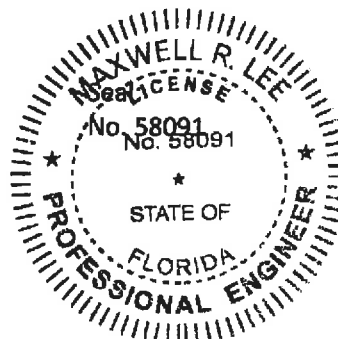
Professional Engineer Certification:

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





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 # 62-701.800(28), F.A.C.
Form Title: Closure Cost Estimating Form
For Solid Waste Facilities
Effective Date: January 6, 2010
Incorporated in Rule 62-701.830(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
850-585-8360

Northeast District
7825 Baymeadows Way, Ste. B200
Jacksonville, FL 32256-7590
904-607-3300

Central District
3319 Maguire Blvd., Ste. 232
Orlando, FL 32803-3767
407-854-7555

Southwest District
13051 N. Telecom Pkwy.
Tempe Terrace, FL 33837
813-632-7600

South District
2295 Victoria Ave., Ste. 354
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 Deflatory 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: _____

Current Year Inflation
Factor, e.g. 1.02 _____

x

=

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: _____

Current Year Inflation
Factor, e.g. 1.02 _____

x

=

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

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	<u>1</u>	\$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	<u>1</u>	\$0.00	_____
Certified Engineering Drawings	LS	<u>1</u>	\$0.00	_____
NSPS/Title V Air Permit	LS	<u>1</u>	\$0.00	_____
Final Survey	LS	<u>1</u>	\$0.00	_____
Certification of Closure	LS	<u>1</u>	\$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	<u>1</u>	_____	_____
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

Operation

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

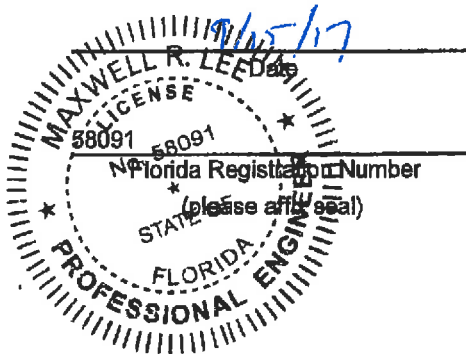
Maxwell R. Lee, Ph.D., P.E.
Name and Title (please type)

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

Titan America, LLC
Pennsuco Complex
Waste Tire Processing – Permit No. WT13-0314354-001

KA 654-17-11
November 13, 2017

APPENDIX F

List of Environmental Permits

ATTACHMENT F - LIST OF ENVIRONMENTAL PERMITS

Titan America - Pennsuco Complex				
Permit Type and Number	Issued To	Issued Date	Expiration Date	Issued By
Air Construction Permit 0250020-049-AC	Titan America, LLC	1-Aug-16	1-Aug-21	FDEP
Air Construction Permit 0250020-048-AC (ext. of 040-AC)	Titan America, LLC	4-May-16	4-May-21	FDEP
Title V Operation 0250020-045-AV	Titan America, LLC	7-Nov-16	7-Nov-21	FDEP
Air Construction Permit 0250020-044-AC	Titan America, LLC	17-Aug-16	17-Aug-21	FDEP
Hazardous Waste (SQG) ID 981019631	Titan America, LLC	9-Aug-16	--	FDEP

FDEP - Florida Department of Environmental Protection