MARYLAND DEPARTMENT OF THE ENVIRONMENT

Land and Materials Administration • Resource Management Program
1800 Washington Boulevard • Suite 610 • Baltimore, Maryland 21230-1719
410-537-3314 • 800–633-6101 x3314 • 410-537-3321 (Fax) • http://www.mde.maryland.gov

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Substitute Fuel/Tire Derived Fuel Facility Approval Application

Authority: Title 9, Environment Article, Annotated Code of Maryland, and Code of Maryland Regulations (COMAR) 26.04.08

"Substitute Fuel/Tire Derived Fuel Facility" means any facility that uses whole or processed scrap tire as a fuel or supplemental fuel as defined in COMAR 26.04.08.02B(31).

Application for: ☐ **New Approval** ☐ **Approval Renewal**

Existing License No.: _____ ***- RFF -*** _____ ***Issued Date*** _____ /_____ /_____ ***Expiration Date:*** _____ /_____ /_____

Applicant's Legal Name: _____

Applicant's Status: ☐ ***Individual*** ☐ ***Corporation*** ☐ ***Government*** ☐ ***Other:*** _____

Corporation or Government Federal Tax Identification No.: _____
OR
Individual Social Security No.: _____
Maryland State Department of Assessments and Taxation (SDAT) ID No.: _____
Please note that a business/entity must be registered to do business in Maryland before a permit can be issued. The business or entity's information provided in this application must match the information in the SDAT register.

Proof of workers' compensation coverage is required under § 1-202 of the Environment Article. Please provide one of the following:
(1) A copy of a Certificate of Compliance issued by the Maryland Workers' Compensation Commission; or
(2) Workers' Compensation Insurance Policy/Binder Number: _____

Facility/Site Name: _____
Facility/Site Address: _____
City: _____ ***State:*** _____ ***Zip Code:*** _____
County: _____ ***County Zoning Map No.:*** _____
Lot/Parcel No.: _____ ***Deed/Liber/Folio No.:*** _____
Latitude/Longitude (Deg/Min/Sec): _____-_____-_____ /_____-_____-_____
Site Acreage: _____ ***Facility Acreage (****Estimated****):*** _____

Applicant's Mailing Address: _____
City: _____ ***State:*** _____ ***Zip Code:*** _____
Applicant's Telephone No.: ( ) _____ - _____ ***Facsimile No.: ( ) _____ - _____***
Email Address: _____
Emergency Contact Name & Title: _____ ***Telephone No.: ( ) _____ - _____***

By signing this form, I the applicant or duly authorized representative, do solemnly affirm under the penalties of perjury that the contents of this application are true to the best of my knowledge, information, and belief. I hereby authorize the representatives of the Department to have access to the site of the proposed facility for inspection and to records relating to this application at any reasonable time. I acknowledge that depending on the type of facility applied for, other permits or approvals may be required.

_____ _____

Signature of Applicant ***Date***

_____ _____

Applicant's Name (Print) ***Title***

Privacy Act Notice: This Notice is provided pursuant to the Federal Privacy Act of 1974, 5 U.S.C. §552.a. Disclosure of your Social Security Number or Federal Employer Identification Number on this application is mandatory pursuant to the provisions of §1-203 (2003), Environment Article, Annotated Code of Maryland, which requires the Maryland Department of the Environment to verify that an applicant for a license has paid all undisputed taxes and unemployment insurance. Social Security or Federal Employer Identification Numbers will not be used for any purposes other than those described in this Notice.

This Notice is provided pursuant to § 10-624 of the State Government Article of the Maryland Code. The personal information requested on this form is intended to be used in processing your application. Failure to provide the information requested may result in your application not being processed. You have the right to inspect, amend, or correct this form. The Maryland Department of the Environment ("MDE") is a public agency and subject to the Maryland Public Information Act (PIA), pursuant to Md. Code Ann., State Gov't §§ 10-601, et seq. This form may be made available on the Internet via MDE's website and is subject to inspection or copying, in whole or in part, by the public and other governmental agencies, if not protected by federal or State law.

For questions regarding this application form, please contact the Department at (410) 537-3314.

THE FOLLOWING INFORMATION MUST BE SUBMITTED WITH THE LICENSE APPLICATION:

A. Economic Demonstration:

Please note that COMAR 26.04.08.03D(7) requires that a facility that processes scrap tires for use as a fuel in an incinerator, boiler, or resource recovery facility or a facility that burns or incinerates scrap tires may not be approved unless the applicant demonstrates to the Department's satisfaction that there is no reasonable and economically available opportunity to process the scrap tires and return them to the marketplace for reuse. This requirement may be satisfied by providing a certification from the Maryland Environmental Service (MES) or by the submission of an analysis of the capacity and tipping fees charged by the scrap tire facilities. The facilities may be those currently operating in Maryland, or those that currently accept scrap tires that are generated in Maryland. For more information about obtaining a certification through MES, please contact MES at (410) 729-8200.

B. DESCRIPTION OF FACILITY AND OPERATIONS

1. Provide the property owner's names, mailing addresses and telephone numbers.

2. Describe the purpose and main functions of the proposed facility.

3. Provide a description of the facility operations. This can be done by describing the various components to the facility operations and how each of these operates as part of regular function of the facility (i.e. weighing, unloading, collection, storage, marketing, residue disposal, hauling, record keeping, employees, administration, etc.).

4. Proposed hours of operation.

5. Describe the current zoning designation and use of the land at the site of the facility and the land within a 1/4 mile radius of the facility.

6. Provide a technical description of the equipment that will be used including equipment used for the placement, movement and transportation of the scrap tires.

7. Describe the weight and use restrictions on access roads that lead to the site.

8. Describe the types of vehicles that will deliver scrap tires to the facility.

9. Describe how the accumulation of scrap tires at the facility shall be managed (designating drop boxes, containers, trailers, other fully enclosed structures, stockpiles, etc.).

10. Types and maximum quantity (number or weight) of scrap tires for passenger cars, trucks or other vehicles estimated to be on site at any given time.

11. Types and quantity (number or weight) of scrap tires for passenger cars, trucks or other vehicles accepted at your facility on a daily basis.

12. Number and size of area(s) designated for non-containerized storage of scrap tires:

_____ x ___ ft x ___ ft x ___ ft = _____

Number x Size = Total Cubic Feet

(Example: 3 areas x 10ft(wide) x 20ft(long) x 10ft(high) = 6,000 CU. FT.)

13. Describe the processing capacity of the facility, by number or weight, of scrap tires per hours.

14. Describe the existing and proposed markets for the facility's tire derived products or raw materials.

C. FACILITY TOPOGRAPHIC INFORMATION AND CONCEPTUAL DESIGN

1. Provide a topographic map that depicts the following. If one of these items is applicable on the site, please indicate:

   a. Map scale, directional orientation and latitude and longitude at the nearest whole second.

   b. Facility's location and the surrounding 1/4 mile area in detail.

   c. Wetlands, floodplains, shorelands, intermittent streams, and other surface waters.

   d. Legal boundaries and land ownership, including county and municipal boundaries, easements and rights-of-way.

   e. Location of all wells.

   f. Location of all occupied dwellings.

A 7-1/2 minute series map or 15 minute series map may be obtained through the Maryland Geological Survey, 2300 St. Paul Street, Baltimore, Maryland 21218, telephone # (410) 554-5500. If neither a 7-1/2 nor 15 minute series map has been published for your site, use a topographic plat map or other appropriate map.

2. Provide a facility conceptual design map(s) that depict:

   a. The total land area of the proposed scrap tire facility in square feet or acreage.

   b. The location and dimension of all existing and planned structure and buildings at the proposed facility, including those used for scrap tire accumulation, storage areas, recycling, processing operation and fire lanes.

   c. Loading and unloading areas.

   d. Access and internal all-weather roads.

   e. Run off control measures (ditches, and dikes).

D. SCRAP TIRE STORAGE

If you intend to accumulate in excess of 15,000 cubic feet (approximately 5,550 passenger scrap tires or 1,100 truck tires) non-containerized scrap tires on site at any one time, you are considered to be storing scrap tires. (See COMAR 26.04.08.02 for a definition of "Store Scrap Tires"). As required by COMAR 26.04.08.13C, when the storage of scrap tires is planned, the applicant shall submit thirteen (13) copies of the application and supporting documents to the Department for distribution to local, State, and other interested agencies as specified in COMAR 26.04.08.09B(3). You will be required to submit this information when the Department accepts your application as complete. Please submit the following with the application:

1. A description of how you will comply with indoor or outdoor storage standards for scrap tires under the specifications described in "Standard for Storage of Rubber Tires," National Fire Protection Association (NFPA), 231D. Tires stored at your site before July 1, 1992 must also be stored in compliance with the standards.

2. A description of how you will control mosquitoes and other insect infestation to prevent public nuisances or health hazards.

3. A description of what measures will be taken in construction of the facility to keep liquid runoff from entering waters of the State in the event of a tire fire.

4. An emergency preparedness manual. This document must contain the following information:

    a. A list of names and telephone numbers of persons to contact in the event of a fire, flood, and any other emergency involving the facility.

    b. A list of emergency response equipment present at the facility or available for use at the facility, the location of the equipment, and how it should be used in the event of a fire or other emergency.

    c. The procedures to be followed by facility personnel from discovery of an emergency until the situation is corrected, including the measures that shall be taken to minimize the occurrence, recurrence, or spread of fires, explosions, and releases.

    d. The location of known water supplies, fire hydrants, dry chemical extinguishers, or other materials that may be used for fire fighting purposes;

    e. Provisions for reporting emergency situations to the Department without delay.

    f. Provisions for familiarizing all employees with the requirements of the emergency.

    g. A demonstration that police and fire protection services are available for the facility.

E. CLOSURE PLAN

Provide a Closure Plan that includes:

1. A description of the facility's operation, including the maximum inventory of scrap tires (including processed portions) and waste residuals that shall be on site at any one time during the operating life of the facility.

2. A cost estimate for closure by using the "Closure Cost Estimate Form" which includes the following:

    a. Identification of and mileage to an authorized scrap tire facility or market place.

    b. Number of vehicle trips required to remove all scrap tires and solid waste from the facility.

    c. Cost per load to transport.

    d. Cost to load.

    e. Cost to deposit scrap tires at an authorized facility or market place and solid waste residuals at a permitted solid waste acceptance facility.

    f. Cost to secure the site and restrict public access.

    g. Administrative costs.

    h. Total closure cost estimate.

3. The manner in which all scrap tires and waste residuals shall be removed from the facility upon closure.

4. A schedule for implementation of the applicable closure procedures described in COMAR 26.04.08.19 including the time period for completing the closure procedures.

Maryland Department of the Environment
Land and Materials Administration
Resource Management Program

CLOSURE COST ESTIMATE FORM

Authority: Code of Maryland Regulations (COMAR) 26.04.08.18B and .20B

An applicant seeking authorization for this type of facility is required to complete and submit this Closure Cost Estimate Form. The estimate must be made of the costs for the transfer of scrap tires to an authorized scrap tire facility or to the marketplace, and for the removal of all solid waste to a permitted solid waste acceptance facility, for the maximum amount of these materials that exist on the site at any time.

Applicant Legal Name: _____

Facility/Site Name: _____

Facility Type (Check one):

____ ***Scrap Tire Primary Collection Facility***

____ **Scrap** ***Tire Recycler***

____ **Substitute** ***Fuel/Tire Derived Fuel Facility***

____ **Scrap** ***Tire Solid Waste Acceptance Facility***

Facility/Site Address: _____

City: _____ ***County:*** _____ ***State:*** _____ ***Zip Code:*** _____

By signing this form, I the applicant or duly authorized representative, do solemnly affirm under the penalties of perjury that the contents of this application are true to the best of my knowledge, information, and belief. I hereby authorize the representatives of the Department to have access to the site of the proposed facility for inspection and to records relating to this application at any reasonable time. I acknowledge that depending on the type of facility applied for, other permits or approvals may be required.

_____ _____

Signature of Applicant ***Date***

_____ _____

Applicant's Name (Print) ***Title***

For questions regarding this application form, please contact the Department at (410) 537-3314.

REQUIREMENTS FOR THE CLOSURE COST ESTIMATE

The estimate shall include the following information:

A. The Name, Address, Telephone Number and Type of the authorized scrap tire facility where scrap tires will be taken upon closure.

B. Use the following parameters to estimate closure costs:

Note: Assume a load of tires is equal to the maximum number of scrap tires or processed portions that can be transported in one vehicle.

1. **Number of Miles (M)**
   This number represents the total round trip mileage to be traveled by a vehicle transporting a load from the scrap tire facility subjected to closure to another permitted facility. This number also includes the mileage to the authorized scrap tire facility that would accept the scrap tires and the return trip to the cleanup site after the vehicle has been emptied.

2. **Transportation Costs (TC)**
   The unit cost to transport a load of scrap tires per mile. The cost includes average expenses for transportation, equipment, fuel, driver wages, tolls, and vehicle maintenance. The cost will vary based on the size of vehicle.

3. **Labor Costs (LC)**
   This cost for loading one vehicle with scrap tires at the facility subjected to closure and unloading the scrap tires at the final destination. This cost includes operating expenses covering worker wages and pro rated expenses for the rental or lease of equipment and machinery used to conduct the cleanup.

4. **Tipping Fees or Disposal Costs (TF)**
   This is the cost to deposit scrap tires at an authorized scrap tire facility and may be a tipping fee or a disposal fee. If the fee is expressed in dollars per ton, the number must be multiplied by the weight of the load scrap tires delivered in order to yield the dollars per load cost. The tipping fee should be based on whether the scrap tires are shredded or whole.

5. **Security Costs (SC)**
   This cost represents the total cost to provide security for entire closure operation and may include the cost to secure the site and to restrict public access. This cost represents the expenses for the entire cleanup operation and may include such items as installation of site fencing, installation or repair of lighting, and wages for security guards.

6. **Administrative Costs (AC)**
   This cost represents the total cost of administering the entire closure operation. The cost may include wages for personnel overseeing the cleanup activities and other operating expenses associated with the project.

7. **Maximum Quantity of Scrap Tires (MT)**
   This number represents the total number of loads required for the entire cleanup operation to be completed. It is equal to the maximum quantity of scrap tires at the facility at any time during the operational life of the facility divided by the maximum number of scrap tires contained in one vehicle load.

C. Calculation for Total Closure Cost (TCC) Estimation

The basic formula to calculate a total estimated closure cost is:

Total Closure Cost Estimate (TCC) = (M x MT x TC) + (MT x TF) + (MT x LC) + AC + SC

"**M x MT x TC"** represents the total cost of transportation for all loads of tires transported from the facility and the transportation costs for the returning vehicles.

"MT x TF" represents the total cost of tipping fees for all loads of scrap tires transported from the cleanup site to an authorized facility. This cost includes the tipping fees for scrap tires and their processed portions.

"**MT x LC"** represents the total cost for loading all loads of scrap tires into the vehicles at the facility under closure and the unloading them at the final destination.

"AC" resents the total cost of administrative activities for the entire closure operation.

"SC" represents the total cost of security arrangements for the entire closure operation.

All costs will be added to estimate the Total Closure Cost for the complete cleanup operation.

Example of a Cost Estimate Calculation For a Site Cleanup

ABC scrap tire facility, located in Baltimore, is required to estimate its closure costs for expenses incurred in transferring all scrap tires to XYZ Facility located in Salisbury, Maryland. The one way distance from ABC Facility to XYZ Facility is 50 miles. The Total Closure Cost Estimate is determined as follows.

The following Assumptions were used to estimate closure costs:

1. **The ABC Facility will use a vehicle 45'-0" long by 8'-0" high and 7'-0" in width for the cleanup operation.**

2. **10 Uncompacted Passenger Tires = 1 yd^3**

3. **The quantity of one load of whole scrap tires will be calculated as follows:**

   Total Truck Volume **=** (45'-0" x 8'-0" x 7'-0") / 27 ft^3 = **95 yd^3**

   Total Number of Passenger Tires Contained in Truck = 95 x 10 = **950 tires**

4. **Determination for the Maximum number of scrap tires stored on the site.**

   The ABC Facility has a total storage volume of 1,500,000 cubic feet for whole and processed scrap tires.
   (1,500,000 ft^3 / 27 ft^3 = 55,555 yd^3 in volume and 1 yd^3 = 10 Passenger Tires)

   The maximum number of scrap tires at ABC Facility equals 55,555 yd^3 x 10 = **555,550 Scrap Tires**

5. **Calculation of Transportation Costs per Load (TC)**

- **Miles Covered (M)** = the total round trip distance in miles covered by a vehicle transporting one load or 950 scrap passenger tires from the ABC Facility to XYZ Facility and the return trip = **100 miles**
- Total number of round trips for one vehicle = **2 loads/day**
- Total number of miles covered for 2 loads/day = **200 miles/day**
- Transportation Equipment Costs of Vehicle Lease Costs of **$100/day+ $0.15/mile** and Vehicle Insurance Costs of **$27/day.**

  Cost for 2 trips per day equals $100/day + $0.15/mile x 200 miles/day+ $27/day = **$157/day**

- Fuel Costs: - Diesel fuel costs **$1.05/gal** and Vehicle Fuel Consumption @ **7 miles/gal**

  Fuel Costs = $1.05 x 200 / 7 = ***$30 per day***

- Driver Wages = Salary + Benefits= **$150/day**
- Toll Cost/Round Trip = **$30/day**
- Vehicle Maintenance Cost = **$35/day**

Daily Cost = $157/day + $30/day + $150/day + $30/day + $35/day **=** $402 day

Transportation Costs (TC) *= $402 day / 2 load/day =* ***$201 per load***

6. Labor Cost Calculations (LC)

- Total number of vehicles to be used = 3/day, 8 hour shift per day.
- Number of laborers used for loading = 2 per day
- Number of days for loading by two laborers = 5 day
- Number of laborers used for unloading = 2 per day
- Number of vehicles unloaded by = 5 per day
- No machines are used for loading or unloading activities
- Number of round trips per day = 5 loads/day

Labor Cost = Salary + Benefits = $10.5 / hour
Labor Cost per day for one laborer =$84/day
Labor Cost per day for 4 laborers = $84 x 4 = $336/day

Labor Cost *= $336/day / 5 loads/day =* ***$67/load***

7. Tipping Fee (TF)

Tipping or disposal fee = $50 per ton
100 passenger tires = 1 ton

Cost for one load of 950 tires *= 950 / 100 x $50/ton =* ***$475/load***

8. Site Security Cost (SC)

- Total days worked per month = 20 days
- Number of loads required for entire cleanup = 585 loads
- Number of round trips per day = 5 loads/day

- Duration of the cleanup operation = 585 loads/5 loads per day = 117 days
- Total number of months for entire cleanup = 117/20 = approx 6 months.

- Total size of the site = 2 acres with a 1,200 linear ft perimeter.

Installation Costs For Fence and Lighting

- *7 per linear foot of fence = $7 x 1,200 + $4,000 = $8,400 + $4,000 =* ***$12,400***

Security Guard Expenses = Salary + Benefits = $9/hour

- *$9/hour x 24 hours/day =* ***$216/day***

Security Guard Expenses for 6 months (180 days) = $216/day x 180 days = ***$38,880***

Total Security Expenses = Installation Cost + Security Guard Expenses

= $12,400 + $38,880 = ***$51,280***

9. Overhead and Administrative Costs (AC) $/Load

- Total duration of cleanup operation = 6 months (at an 8 hour shift per day)

Administration Cost = Site Manager's Wages + Operators Wages + Other Miscellaneous Expenses

Site Manager Wages = Salary + Benefits = $19/hour + $5/hour = $24/hour

- Site Manager Wages For Project = $24/hour x 8 hrs/day = $192/day x 120 days = ***$23,040***

- Operator Wages = Salary + Benefits = $10/hour + $3/hour = $13/hour

- 2- Operators Wages = $13/hour x 2 = $26/hour 8 hours/day x 120 days = ***$24,960***

Other Miscellaneous Expenses for Project = Construction of Fire Pond + Telephone + Electric + Trash Removal + Uniforms + Fuel + Office supplies

= $5,000 + $600 + $1,200 + $1,000 + $1,000+$1,200 $1,000 = ***$11,000***

Total Administrative Cost = Site Manager Wages + Site Operator's Wages + Other Expenses

= $23,040 + $24,960 + $11,000 = ***$59,000***

10. Maximum Quantity of Scrap Tires (MT) Total # of Loads

- **The maximum quantity of scrap tires at ABC Facility is 277,775.**
- **Each load is comprised with 950 scrap tires**

Total # of Loads = 277,775 / 950 = ***293 Loads***

Calculation for the Total Estimated Closure Cost (TCC)

TCC = (M x MT x TC) + (MT x TF) + (MT x LC) + AC + SC
= (100 x 293 x 2) + (293 x 475) + (293 x 67) + (59,000) + (51,280)
= 58,000 + 139,175 + 19,631 + 59,000 + 51,280

TCC = $327,086