

GENERAL PERMIT WMGR079

PROCESSING AND BENEFICIAL USE
OF
WASTE ASPHALT SHINGLES

DEPARTMENT OF ENVIRONMENTAL PROTECTION
BUREAU OF WASTE MANAGEMENT
DIVISION OF MUNICIPAL & RESIDUAL WASTE

Issued: July 1, 2016

Amended: September 22, 2016

Expires: July 1, 2026

GENERAL PERMIT WMGR079

BENEFICIAL USE OF WASTE ASPHALT SHINGLES

A. Description.

The approval herein granted is limited to the processing and beneficial use of waste asphalt shingles (i.e., imperfections, tabs, trimming scraps, damaged shingles, etc.), hereinafter referred to as “waste asphalt shingles or waste shingles,” generated in the manufacturing of new asphalt shingles for use as an ingredient or a component in the production of hot mix asphalt-paving material or blended with other aggregate that will be used as a roadway-base course and will covered with asphalt, concrete or other surfacing material.

The approval granted herein applies to waste asphalt shingles generated at manufacturing facilities in the production of new asphalt roofing shingles. Wrapping paper that has been segregated from the waste asphalt shingles shall be managed as a residual waste at a permitted disposal facility or recycled. The processing and beneficial use of rolled tarpaper and tear-off waste asphalt shingles generated during the demolition or replacement of existing roofs is not authorized under this general permit.

B. Determination of Applicability Requirements.

A person or municipality that proposes to operate under the terms and conditions of this general permit after the date of permit issuance must obtain a "Determination of Applicability" from the appropriate Department Regional Office (see attached list). A completed application on forms provided by the Department along with the application fee for a determination of applicability in the amount identified in Section A (General Information) of the Form 20M (Application For A Municipal Waste General Permit) must be submitted to the appropriate Department Regional Office. Checks shall be made payable to the “Commonwealth of Pennsylvania”.

C. Operating Conditions:

1. The waste asphalt shingles may be beneficially used if the following quality criteria requirements are met:
 - a. Where the waste asphalt shingles are blended with other aggregate, as a sub-base for roadway construction material, the mixture must comply with the requirements of the Pennsylvania Department of Transportation (PennDOT) specifications as outlined in their Publication No. 408 (Specifications);
 - b. Where the waste asphalt shingles are used as an ingredient or a component in the production of hot mix asphalt-paving material, the asphalt-paving material must meet the applicable requirements of the American Society for Testing and Materials (ASTM) Standard, or other national, state, or industry standard for which it is being used;

GENERAL PERMIT WMGR079 BENEFICIAL USE OF WASTE ASPHALT SHINGLES

- c. The waste asphalt shingles conform to the engineering properties for the raw material for which it is being substituted;
 - d. The waste asphalt shingles do not contain asbestos; and
 - e. The concentration of any constituent, in the waste asphalt shingles, does not exceed the chemical limitations as specified in Condition 2 below.
2. Waste asphalt shingles shall not be used in roadway construction if the concentration of any constituent listed in Table 1 below is exceeded. Waste asphalt shingles shall not be used as an ingredient or component in the production of hot mix asphalt-paving material if the leachable concentration for any constituent listed in Table 1 below is exceeded in the waste asphalt shingles, unless the leachable levels are not exceeded when the asphalt-paving materials manufactured with waste asphalt shingles is sampled and analyzed. Analysis of the asphalt-paving material manufactured with waste asphalt shingles shall be determined by representative samples of the asphalt-paving material.

Table 1

Parameters	Total (mg/kg)	Leachable ⁽¹⁾ (mg/l)
Arsenic	41	1.25
Barium	5000	50.0
Cadmium	20	0.125
Chromium (Total)	1000	2.5
Copper	700	32.5
pH	5.5 to 9.5	-----
Molybdenum	----	4.375
Nickel	200	17.5
Zinc	1000	125.0

Compliance with the limits provided in Table 1 may demonstrated by meeting the 90 percent upper confidence level for each metal, or the 80 percent confidence interval for pH, using the Test Methods for Evaluating Solid Waste (EPA SW-946) as guidance for the statistical treatment of data.

⁽¹⁾ Leachability evaluations shall be conducted using the Toxicity Characteristic Leaching Procedure (EPA method 1311) or the Synthetic Precipitation Leaching Procedure (EPA method 1312).

GENERAL PERMIT WMGR079 BENEFICIAL USE OF WASTE ASPHALT SHINGLES

3. If analysis of the asphalt-paving material demonstrates that the leachable concentration is at or below the levels given in Table 1 above, re-analysis of any asphalt-paving material that is manufactured with the addition of waste asphalt shingles as an ingredient or a component is not required, provided that the waste asphalt shingles used to make the paving material:
 - a. Are from the same source and production line;
 - b. The chemical and physical characteristics of the waste asphalt shingles do not change; and
 - c. The amount of waste asphalt shingles used to produce the paving material is not increased.

In compliance with the requirements specified in Condition 2 of this permit, a signed certificate from the manufacturer of the asphalt shingles stating that the physical and chemical properties of the waste asphalt shingles have not changed must be submitted with the annual report required by Section E of this general permit (relating to reporting requirements). The signed certificate may be used for a maximum of two years, from the date of the last analysis. At a minimum, the waste asphalt shingles must be reanalyzed once every two years.

4. Prior to the first beneficial use and prior to each construction season thereafter, representative samples of the waste asphalt shingles, intended for beneficial use, shall be analyzed for the total (mg/kg) and leachable (mg/L) levels for each parameter listed in Condition 2 of this general permit. To obtain a representative sample of the waste asphalt shingles, the samples must be taken from multiple locations in the batch or storage pile and represent the entire amount of waste asphalt shingles being sampled. In the batch process, more than one sample is necessary to accurately represent a particular batch or a storage pile of waste asphalt shingles. In general, the more samples taken, the greater the chance that the sampling results will be representative. The pollutant limits specified in Condition 2 of this general permit pertain to the quality of the waste asphalt shingles that will be beneficially used, and therefore, samples must be collected after the final stage of the manufacturing process and prior to storage.

Should knowledge of the process by which the waste asphalt shingles are generated, visual observations, or analytical results indicate variability in the quality of the waste asphalt shingles, more frequent testing shall be conducted.

5. The permittee shall inform all persons or municipalities which propose to beneficially use waste asphalt shingles covered under this permit of all the conditions and limitations imposed on the beneficial use of waste asphalt shingles by the Department of

GENERAL PERMIT WMGR079 BENEFICIAL USE OF WASTE ASPHALT SHINGLES

Environmental Protection (Department). This notification shall include a copy of Appendix A (Acceptable Uses and Use Restrictions) of this permit. The conditions in Appendix A also apply to any permittee who obtains a Determination of Applicability to conduct activities authorized by this permit. The permittee shall record the name and address of each person who is given or purchases the waste asphalt shingles and shall record its intended use. This information shall be included in the annual report required in Section E of this general permit (relating to reporting requirements). The permittee shall ensure that users of the waste asphalt shingles approved under this general permit comply with the conditions of this permit.

6. The storage and transportation of waste asphalt shingles shall be in a manner which does not create a nuisance or harm to the public health, safety or the environment and complies with the requirements of 25 Pa Code, Chapter 299 (relating to storage and transportation of residual waste).
7. Unless otherwise authorized by the Department in writing, waste asphalt shingles shall not be stored for more than one (1) year, and at any one time, the maximum amount stored may not exceed 30,000 tons of pre- and post-processed waste asphalt shingles, prior to blending with other aggregate, as described in the approved application.
8. Equipment used for the storage and transportation of the waste asphalt shingles shall be maintained in good operating condition to prevent waste asphalt shingles from being unintentionally conveyed out of the storage area(s). Weekly inspections of each storage area and their surrounding environs shall be conducted to determine compliance with the terms and conditions of this general permit and check for evidence of failure.
9. Upon cessation of operations or by the expiration date of this general permit, unless extended by the Department in writing, the permittee shall remove any remaining waste asphalt shingles, residual wastes and other materials which contain or have been contaminated by the waste asphalt shingles and provide for the processing and disposal of the waste or material in accordance with the Solid Waste Management Act (SWMA), 35 P.S. §§ 6018.101—6018.1001, the environmental protection acts and the regulations promulgated thereunder.
10. The permittee shall comply with the fugitive emissions regulations under 25 Pa. Code, Chapter 123 (relating to standards for contaminants) issued under the Air Pollution Control Act, the Act of January 8, 1960, P.L. 2119, 35 P.S. §4005, and shall comply with all the applicable provisions of 25 Pa Code §§123.1 and 123.2 (relating to prohibition of certain fugitive emissions and fugitive particulate matter).

GENERAL PERMIT WMGR079
BENEFICIAL USE OF WASTE ASPHALT SHINGLES

11. Nothing in this permit shall be construed to supersede, amend, or authorize a violation of any of the provisions of any valid and applicable local law, ordinance, or regulation, providing that said local law, ordinance, or regulation is not preempted by the SWMA, 35 P.S. §6018.101 et seq; and the Municipal Waste Planning, Recycling and Waste Reduction Act of 1988, 53 P.S. §4000.101 et seq.
12. As a condition of this permit and of the permittee's authority to conduct the activities authorized by this permit, the permittee hereby authorizes and consents to allow authorized employees or agents of the Department, without advance notice or search warrant, upon presentation of appropriate credentials and without delay, to have access to and inspect all areas on which solid waste management activities are being, will be, or have been conducted. This authorization and consent shall include consent to collect samples of waste asphalt shingles, soils, water, or gases; take photographs; to perform measurements, surveys, and other tests; inspect any monitoring equipment; to inspect the methods of operation and to inspect and/or copy documents, books, and papers required by the Department to be maintained. This permit condition is referenced in accordance with §§608 and 610(7) of the SWMA, 35 P.S. §§6018.608 and 6018.610(7). This condition in no way limits any other powers granted under the SWMA.
13. The activities authorized by this permit shall not harm or present a threat of harm to the health, safety or welfare of the people or environment of this Commonwealth. The Department may modify, suspend, revoke and reissue the authorization granted in this permit if it deems necessary to prevent harm or the threat of harm to the public health, and the environment or if they cannot be adequately regulated under the conditions of this permit.
14. The permittee shall comply with the terms and conditions of this general permit and with the environmental protection acts to the same extent as if the activities were covered by an individual permit. The Department may require an individual permit be obtained if the permittee cannot comply with the conditions of this general permit or is conducting an activity that harms or presents a threat of harm to the health, safety or welfare of the public or the environment.
15. Any independent contractors or agents retained by the permittee in the completion of activities authorized under this permit shall be subject to compliance history review by the Department prior to performance of any activities, as specified by the SWMA, 35 P.S. §§ 6018.101—6018.1001.
16. All waste asphalt shingles and materials derived from the waste asphalt shingles under the authorization granted in this permit shall be managed in accordance with the permittee's application. Except to the extent the permit states otherwise, the permittee

GENERAL PERMIT WMGR079 BENEFICIAL USE OF WASTE ASPHALT SHINGLES

shall utilize the waste asphalt shingles for beneficial use purposes as described in the permit application.

17. Failure of measures herein approved to perform as intended, or as designed, or in compliance with the applicable laws, rules, and regulations and terms and conditions of this permit, for any reason, shall be grounds for the revocation or suspension of the permittee's approval to operate under this permit.
18. Hazardous waste, municipal waste, special handling waste, and other residual wastes may not be mixed and/or stored or beneficially used with the asphalt shingles.
19. The permittee shall maintain a bond in an amount and with sufficient guarantees as provided by 25 Pa. Code, Chapter 287, Subchapter E (relating to bonding and insurance requirements).
20. The bond filed with the Department under Condition 21 shall continue for the operational life of the facility, until 10 years after final closure of the facility, unless released in whole or in part by the Department, in writing, prior thereto as provided by 25 Pa. Code §287.341 (relating to release of bonds).
21. The permittee shall maintain in force and effect a general liability insurance policy, in accordance with 25 Pa. Code, Chapter 287, Subchapter E (relating to bonding and insurance requirements), to provide continuous coverage during operation of the facility and until the Department issues a final closure certification as provided by 25 Pa. Code §287.342 (relating to final closure certification).
22. Runoff from the waste asphalt shingles storage area(s) shall not cause surface water pollution or groundwater degradation and shall be managed in accordance with The Clean Streams Law, 35 P.S. §691.1 and the regulations promulgated thereunder.
23. This permit does not authorize and shall not be construed as an approval to discharge any industrial wastes, wastewater, leachate or runoff from areas where solid waste management activities are conducted to the waters of the Commonwealth.
24. The analytical testing required by this general permit shall be performed by a laboratory accredited under the Environmental Laboratory Accreditation Act, 27 Pa. C.S.A. §§101-4113.

D. Record Keeping.

The permittee shall maintain records of all analytical evaluations conducted on the waste asphalt shingles or material manufactured with the waste asphalt shingles, and records shall

GENERAL PERMIT WMGR079 BENEFICIAL USE OF WASTE ASPHALT SHINGLES

be made available to the Department upon request. Required records shall be retained for a minimum of 5 years. Records of analytical evaluations must include, at a minimum, the following for each sample: the dates of sampling and testing, sampling procedures utilized, name of the individual who collected the sample, the volume or weight of the sample, each parameter tested, the analytical results, the name of the analytical laboratory used, and the analytical methodologies employed.

E. Reporting Requirements.

1. The permittee shall immediately notify the Department's Emergency Hotline by telephone at (717) 787-4343 and the appropriate DEP regional office in the event of a discharge or spill, and shall take appropriate immediate action to protect the health and safety of the public and the environment.
2. Any person that operates under the provisions of this permit shall immediately notify the appropriate Department Regional Office via certified mail of any changes in the following information: the name, address, owners, operators and/or responsible officials of the company; changes in facility location; changes in land ownership or the right to operate on the land occupied; the physical or chemical characteristics of the waste asphalt shingles; the manufacturing process which generates the asphalt shingles; the change in status of bonding and insurance of the facility; and the change in status of any permit issued by the Department or any state authority or federal government under the environmental protection acts.
3. The permittee shall submit to the appropriate Department Regional Office (see attached list) an annual report that summarizes the information outlined in Section D of this general permit (relating to record keeping). The annual report, due March 1 for the preceding calendar year, must also include one of the following:
 - a. Actual laboratory reports of the total and leaching analyses conducted for all parameters listed in Table 1 of Condition 2 of this general permit. Analysis data submitted in compliance with this requirement must be from samples of the waste asphalt shingles collected within the past 12 months;
 - b. A summary of the information outlined in Conditions 3, 5 and Section D of this general permit (relating to record keeping), including the name and address of generator(s) of waste asphalt shingles and the weight or volume of waste asphalt shingles in storage, sold, traded or given away; or
 - c. Actual laboratory reports for the leaching analysis for all the parameters listed in Table 1 of Condition 2 on the waste asphalt shingles used to produce each new

GENERAL PERMIT WMGR079 BENEFICIAL USE OF WASTE ASPHALT SHINGLES

asphalt-paving material produced by the permittee since the submission of the previous annual report.

F. Renewal.

A person or municipality that plans to continue the operations authorized under this general permit, after the expiration date indicated on the approval for coverage page, shall file a complete application for permit renewal at least 180 days before the expiration date of this general permit unless permission has been granted by the Department for submission at a later date. The renewal application shall be made using the "Form 20 (Application For a Municipal or Residual Waste General Permit)." The renewal shall be sent to the attention of the Department's Bureau of Waste Management, Rachel Carson State Office Building, 400 Market Street, P.O. Box 69170, Harrisburg, PA 17106-9170.

In the event that a timely and complete application for renewal has been submitted and the Department is unable, through no fault of the permittee, to reissue the general permit or approval for coverage before its current coverage expiration date, the terms and conditions of the approved coverage will automatically continue and will remain fully effective and enforceable pending the issuance or denial of the renewal for permit coverage, provided the permittee is, and has been, operating in compliance with the terms and conditions of the general permit.

APPENDIX A
ACCEPTABLE USES AND USE RESTRICTIONS
GENERAL PERMIT NO. WMGR079

The following “Acceptable Uses and Use Restrictions” apply to the beneficial use of waste asphalt shingles (i.e., imperfections, tabs, trimming scraps, damaged shingles, etc.), hereinafter referred to as “waste asphalt shingles or waste shingles,” generated in the manufacturing of new asphalt shingles for use as an ingredient or a component in the production of hot mix asphalt-paving material or blended with other aggregate that will be used as a roadway-base course and will be covered with asphalt, concrete or other surfacing material.

The processing and beneficial use of rolled tarpaper and tear-off waste asphalt shingles generated during the demolition or replacement of existing roofs is not authorized under this general permit. Persons receiving, storing and/or using the waste asphalt shingles for beneficial use purposes must comply with the following requirements:

ACCEPTABLE USES.

- A1. Approval for the beneficial use of waste asphalt shingles is limited only to waste asphalt shingles generated at manufacturing facilities in the production of new asphalt roofing shingles. Wrapping paper that has been segregated from the waste asphalt shingles shall be managed properly at a permitted disposal facility or recycled.
- A2. Approval for the beneficial use of waste asphalt shingles as a roadway construction material is limited to and must comply with the following technical standards developed by the Pennsylvania Department of Transportation (PENNDOT) as outlined in the following sections of their Publication 408, Specifications:
 - (a) 300 (Base Courses)
 - (b) 400 (Flexible Pavements)
 - (c) 703 (Aggregate, excluding 703.4 anti-skid material)
- A3. Approval for the beneficial use of waste asphalt shingles as an ingredient or a component in the production of hot mix asphalt paving material shall conform, at a minimum, with the following materials standards as set forth in the following American Society of Testing and Material (ASTM) standards, or other National, state or industry standard or specification, that are applicable to the material for which the waste is being substituted:
 - (a) D 242 - Standard Specification for Mineral Filler for Bituminous Paving Material.
 - (b) D 692 - Standard Specification for Coarse Aggregate for Bituminous Paving Material.
 - (c) D 693 - Standard Specification for Crushed Aggregate for Macadam Pavements.
 - (d) D 979 - Standard Practice for Sampling Bituminous Paving Mixtures.
 - (e) D 1073 - Standard Specification for Fine Aggregate for Bituminous Paving Material.
 - (f) D 1241 - Standard Specification for Materials for Soil-Aggregate Sub-Base, Base and Surface Courses.

APPENDIX A
ACCEPTABLE USES AND USE RESTRICTIONS
GENERAL PERMIT NO. WMGR079

(g) D 2940 - Standard Specification for Graded Aggregate Materials for Bases or Sub-Bases for Highways or Airports.

USE RESTRICTIONS.

- A4. Hot mix asphalt paving material, using waste asphalt shingles as a component or an ingredient, shall not be placed in direct contact with surface water or groundwater.
- A5. Roadway sub base material, mixed with processed waste asphalt shingles, shall not be placed in a wetland or within 300 feet of a private or public water source.
- A6. Waste asphalt shingles or materials manufactured using waste asphalt shingles as a component or ingredient shall not be used as a valley fill material; to fill open pits from coal or noncoal mining; or to level or bring an area to grade where a roadway construction activity is not completed within 3 months after the placement of the waste asphalt shingles or materials derived from the waste asphalt shingles.
- A7. Hazardous waste, municipal waste, special handling waste, and other residual wastes may not be mixed and/or stored or beneficially used with the asphalt shingles.
- A8. Unless specifically approved by the Department in writing, the waste asphalt shingles shall not be stored for more than one (1) year, and at any one time the maximum amount stored may not exceed 30,000 tons of pre- and post-processed waste asphalt shingles, prior to blending with other aggregate, and as follows:
 - i. The waste asphalt shingles are not accumulated before being beneficially used unless the operator shows that the waste asphalt shingles are potentially reusable and have a feasible means of being beneficially used; and
 - ii. During any calendar year (commencing on January 1), the amount of waste asphalt shingles that is beneficially used or transferred to a different site for beneficial use, must equal at least 75%, by weight or volume, of the waste asphalt shingles accumulated at the beginning of the period. In calculating the percentage of waste singles beneficially used, the 75% requirement is to be applied to each waste of the same type (i.e., waste asphalt shingles from a single manufacturer) that is beneficially used in the same way.
- A9. The storage, transportation or use of the waste asphalt shingles shall be in a manner which will not create a nuisance or be harmful to the public health, safety or the environment. The storage and transportation of asphalt shingles shall comply with the requirements of 25 Pa Code, Chapter 299 (relating to storage and transportation of residual waste).

APPENDIX A
ACCEPTABLE USES AND USE RESTRICTIONS
GENERAL PERMIT NO. WMGR079

A10. Runoff from the waste asphalt shingles storage areas shall not cause surface water pollution or groundwater degradation and shall be managed in accordance with The Clean Streams Law, 35 P. S. § 691.1, and regulations promulgated thereunder.

**Department of Environmental Protection
Regional Office
(and Counties Served)**

- I. Bucks, Chester, Delaware, Montgomery, Philadelphia.

Southeast Regional Office

2 East Main Street
Norristown, PA 19401
Phone: (484) 250 - 5960

- II. Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, Schuylkill, Susquehanna, Wayne, Wyoming.

Northeast Regional Office

2 Public Square
Wilkes-Barre, PA 18711-0790
Phone: (570) 826 – 2516

- III. Adams, Bedford, Berks, Blair, Cumberland, Dauphin, Franklin, Fulton, Huntingdon, Juniata, Lancaster, Lebanon, Mifflin, Perry, York.

Southcentral Regional Office

909 Elmerton Avenue
Harrisburg, PA 17110-8200
Phone: (717) 705 – 4706

- IV. Bradford, Cameron, Centre, Clearfield, Clinton, Columbia, Lycoming, Montour, Northumberland, Potter, Snyder, Sullivan, Tioga, Union.

Northcentral Regional Office

208 West 3rd Street - Suite 101
Williamsport, PA 17701
Phone: (570) 327 – 3653

- V. Allegheny, Armstrong, Beaver, Cambria, Fayette, Greene, Indiana, Somerset, Washington, Westmoreland.

Southwest Regional Office

400 Waterfront Drive
Pittsburgh, PA 15222-4745
Phone: (412) 442 – 4000

- VI. Butler, Clarion, Crawford, Elk, Erie, Forest, Jefferson, Lawrence, McKean, Mercer, Venango, Warren.

Northwest Regional Office

230 Chestnut Street
Meadville, PA 16335-3481
Phone: 814-332-6848