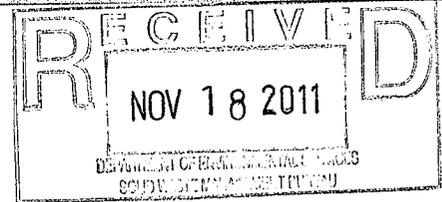


November 15, 2011

Mr. Paul Gildersleeve  
NH Department of Environmental Services  
Waste Management Division, Permitting & Design Review Section  
29 Hazen Drive, PO Box 95  
Concord, NH 03302-0095



WMD log # 2011726

**RE: Hard Copy Submittal of Revised Certified Waste Derived Product Application**

Dear Mr. Gildersleeve:

Enclosed are three copies each of the revised Certified Waste Derived Product Application regarding the shingle recycling operation in Nashua, NH. This revision incorporates responses to your comments from your October 27, 2011 letter.

The following is a brief summary of our responses to your numbered questions:

- #1 and #2: We revised the Application Form to include Mr. Grandmaison's email address and proper street address. East Glenwood Avenue Street Extension is correct address.
- #3: We expect to market roofers and container companies working in a 30-60 mile radius from Nashua, NH.
- #4: We have addressed your comment with a two-part response. We intend to produce a blend using the maximum roofing content and fines percentages stipulated by NHDES. We do request, however, the flexibility to make other blends. If these blends that will contain a higher percentage of recycled asphalt shingle content pass the screening level criteria we propose they can be used in accordance with the procedures provided in the CWDP.
- #5: Page 3 is not included as an alternate Section IV is provided as part of this submittal. As a result, Page 3 from the Application is no longer required as the information provided on this page is included in and addressed with the attached Section IV response.
- #6: A process flow diagram is attached.
- #7, #8, #9, #10: We have revised the section pertaining to applicable uses to avoid confusion as we previously used different words to describe the same application.
- #11: Change made as noted.

We thank you for the opportunity to provide these responses and should you have questions please do not hesitate to contact me at 508-254-0394. Thank you in advance for your consideration.

Sincerely,



Steven B. Radel



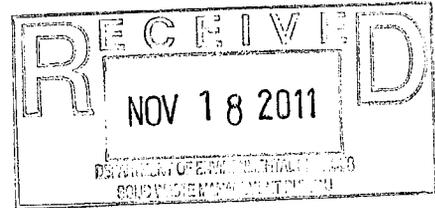
Waste Management Division

**For Office Use Only:**

WMD Log #: \_\_\_\_\_

Date Rec'd.: \_\_\_\_\_

No. of Copies: \_\_\_\_\_



APPLICATION TO

# CERTIFY A WASTE DERIVED PRODUCT FOR DISTRIBUTION & USE

pursuant to  
the provisions of Chapter Env-Sw 1500 of the New Hampshire Solid Waste Rules

## APPLICATION FILING AND PROCESSING INSTRUCTIONS

- (1) Complete this form by providing all of the information requested. If you need more space than provided on the form to answer a particular question and you are using a paper copy of this form, attach additional pages as necessary; mark each page clearly to show both the applicant name and the question being answered; and indicate on the form that the additional pages are attached.
- (2) Submit **THREE** copies of the completed application form, **EACH** bearing **ORIGINAL** signatures, to the following address:  
  

New Hampshire Department of Environmental Services (DES)  
Waste Management Division (WMD)  
Permitting & Design Review Section (P&DRS)  
29 Hazen Drive, PO Box 95  
Concord, NH 03302-0095
- (3) All references on this form beginning with "Env-Sw" are citations from the New Hampshire Solid Waste Rules. You may obtain a copy of the Rules from the DES Public Information and Permitting Office at (603) 271-2975. The Rules are also available on the Internet at [www.des.nh.gov](http://www.des.nh.gov).
- (4) DES will process your application in conformance with Env-Sw 1507.
- (5) For further assistance with completing this form, or to obtain a disk copy of this form, contact the DES Permitting & Design Review Section (P&DRS) at (603) 271-2925 or at the above noted mailing address.
- (6) You may also contact DES at TDD Access: Relay NH 1 (800) 735-2964.

## SECTION I. APPLICANT IDENTIFICATION

Provide the following information to identify the applicant. Note: If the product being certified is a proprietary product, the applicant must be the proprietor.

(1)	Applicant name: Ansel Grandmaison, Building Products Recycling Operation, LLC		
(2)	Mailing address: 571 South Main St., Nashua, NH 03060		
(3)	Telephone number: 508-254-0394; Email: scrapmetalsinc@yahoo.com	Email:	
(4)	If different than above, identify the individual associated with and designated by the applicant to be the contact individual for matters concerning this application:		
(a)	Name: Steve Radel	(b)	Title: Consultant
(c)	Mailing address: 8 Chadwick Way		
(d)	Telephone number: 508-254-0394	Email:	sradel@sbrholdings.com
(5)	If the applicant is an individual, provide date of birth and go to question (7) below:		
(6)	If the applicant is a corporation, partnership or other association, provide the following information as specified:		
(a)	The facility is owned by a: <input type="checkbox"/> corporation <input checked="" type="checkbox"/> partnership <input type="checkbox"/> other association		
(b)	State of incorporation/formation: New Hampshire		
(c)	Principal business address: East Glenwood Avenue St. Extension, Nashua, NH 03060		

REVISED 11/15/2011



to create a nuisance and/or adversely effect the environment, public health and safety, such as odor, dust, fire or explosion; any potential respiratory hazards including the potential for dust or fumes; and any potential dermal contact hazards, for instance chemical burns to skin:

**SEE ATTACHED SECTION IV**

(c) Provide documentation and materials detailing the general quality of the waste ingredient(s), including:

- ☛ Physical, chemical and, where appropriate, biological characteristics of the waste ingredient(s) based on current and representative sampling or equivalent documentation and including analytical test results for those constituents that are reasonably thought to be present in the waste and which are known or suspected, by way of published scientific documentation, to pose a potential risk to human health or the environment; and
- ☛ Material safety data sheets for the waste ingredients and constituents of the waste ingredients, if published pursuant to OSHA regulations.

Mark any attached information as "Attachment IV(c)" and list the attachments below.

(d) Describe the process by which each waste ingredient is generated:

(e) Identify all known generators of the waste ingredient(s), including name(s) and location(s):

Generator Name	Location/Address

(f) Estimated quantity of waste generated annually in New Hampshire:

(2) Describe the process by which the WASTE-DERIVED PRODUCT is or will be produced, as follows:

(a) Provide product specifications, which establish:

- ☛ Material and waste content;
- ☛ Acceptance limits for material and waste ingredients, using physical, chemical and biological parameters as appropriate to the type(s) of material(s) and type(s) of waste being used to produce the waste-derived product; and

**CERTIFIED WASTE-DERIVED PRODUCT  
BUILDING PRODUCTS RECYCLING OPERATION**

**SECTION IV. PRODUCTION**

**(1) Identify and characterize the WASTE INGREDIENT(S) used to produce the waste-derived product, as follows:**

**(a) Identify and characterize the type of waste used to make this product (i.e., the "waste ingredients"). Include a description of the physical appearance and physical state of the waste ingredient(s), including whether the waste ingredient is a solid, liquid or gas:**

EnviroPave will be made from waste asphalt tear-off shingles. The shingles will be ground to produce paving and cover material. The paving material will consist of varying percentages of aggregate depending on the reuse application. In cases where the ground shingles will be combined with aggregate, the material will be blended with crushed aggregate including aggregate based demolition materials that may include asphalt pavement, brick, and concrete, ledge, stone tailings and other similar aggregate based materials.

**(b) Describe other distinguishing characteristics of the waste ingredient(s), including any characteristics which have the potential to create a nuisance and/or adversely effect the environment, public health and safety, such as odor, dust, fire or explosion; any potential respiratory hazards including the potential for dust or fumes; and any potential dermal contact hazards, for instance chemical burns to skin:**

The asphalt shingle materials are relatively innocuous are asphalt based and therefore black in color with various levels of aggregate used as base coarse and top coating. The potential exposure issues associated with this material would be expected to be consistent with or less than those associated with virgin asphalt paving mixes.

**(c) Provide documentation and materials detailing the general quality of the waste ingredient(s), including:**

- **Physical, chemical and, where appropriate, biological characteristics of the waste ingredient(s) based on current and representative sampling or equivalent documentation and including analytical test results for those constituents that are reasonably thought to be present in the waste and which are known or suspected, by way of published scientific documentation, to pose a potential risk to human health or the environment;**

The characteristics of the waste shingle material have been well documented by various companies over the years. Because a small percentage of asbestos was used in shingle construction during a narrow period of manufacturing, asbestos content is one of the most important considerations and testing is performed to ensure the material does not contain asbestos fibers.

Most recently, testing from shingles representative samples from over 32,030 tons of waste asphalt shingles recovered in New Hampshire over the past five years has indicated no detectable asbestos fibers, and no exceedances of the following Maximum Screening Concentrations:

<u>PAHs</u>	<u>Screening Concentrations (mg/kg)</u>
Benzo(a)pyrene	35.7

<u>Metals</u>	<u>Screening Concentrations (mg/kg)</u>
Arsenic	11
Barium	750
Cadmium	32
Chromium VI	130
Lead	400
Mercury	13
Selenium	260
Silver	45

- **Material safety data sheets for the waste ingredients and constituents of the waste ingredients, if published pursuant to OSHA regulations.**

No MSDS sheets associated with waste asphalt shingles.

**Mark any attached information as "Attachment IV and list the attachments below.**

No attachments.

**(d) Describe the process by which each waste ingredient is generated:**

Waste asphalt shingles are generated when roofs are repaired and or replaced. The existing shingles are torn off of the roof and dropped into a waste container for recycling. Care is taken to ensure wood, felts and these wastes materials are not included in the waste shingle loads; if material is commingled it is separated prior to processing and managed properly.

**(e) Identify all known generators of the waste ingredient(s), including name(s) and location(s):**

**Generator Name**

The business will service roofers in the greater Nashua area; specifically we expect to attract roofers and container companies servicing an approximately 30-60 mile radius from Nashua.

**Location Address**

Various.

**(f) Estimated quantity of waste generated annually in New Hampshire:**

Our very general estimate is that each year an average of over 5,000 tons of waste shingles are generated in southern New Hampshire.

**(2) Describe the process by which the WASTE-DERIVED PRODUCT is or will be produced, as follows:**

**(a) Provide product specifications, which establish:**

- **Material and waste content;**

The product is manufactured using ground asphalt shingles that are either used alone or are blended with varying percentages of crushed aggregate including aggregate based demolition materials that may include asphalt pavement, brick, and concrete, ledge, stone tailings and other similar aggregate based materials. We are planning on making a variety of Enviropave blends ranging from 40% asphalt shingles and 60% recycled aggregate to higher blends. See Attachment IV(1)(2) b below for a detailed explanation.

These various blends will be used on non-residential sites in a variety of applications that may range from dust control, surface cover, subbase and subgrade material, surface cover and surface coating material. The different material blends will be used at a variety of end-use sites and applications including:

1. Base Course and subbase aggregate for the construction of a Portland cement concrete or asphaltic concrete paved lot;
2. Base course and subbase aggregate for the construction of a paved federal, state, or municipal roadway;
3. Unbonded surface course, including the use as a surface course for municipal roads, non-residential driveways, non-residential parking areas, and recreation or exercise trails; and
4. Roadway shoulder aggregate;
5. Capping and cover material for industrial sites, brownfield sites and other non-residential use applications.
6. The 100% recycled shingle blend can be used as an initial low cost subgrade especially on roads and areas that also receive aggregate materials as a wearing surface. Rather than blending recycled shingle materials with aggregates in a pug mill, placing 100% recycled shingles on top of an aggregate layer or placing aggregate material on top of a shingle pavement layer, these materials will bind accordingly into a subgrade material that will serve as dust and erosion control as well as a low cost wearing surface. These areas can be enhanced periodically with more aggregate or recycled shingle material to continue to build-up the wearing course and enhance its performance.

**Non-Permissible Uses**

1. Surface course for residential driveways;
2. Surface course for residential parking lots; and
3. Playgrounds.

Transfer - raw (unprocessed) asphalt shingle material may also be delivered to suppliers (including but not limited to Commercial Paving) in exchange for recycled shingle product.

ALL ACTIVITIES WILL COMPLY WITH THE ATTACHED PROTOCOL THAT INCLUDES ACCEPTANCE LIMITATIONS AND SPECIFICATIONS. SEE ATTACHMENT IV.

**Acceptance limits for material and waste ingredients, using physical, chemical and biological parameters as appropriate to the type(s) of material(s) and type(s) of waste being used to produce the waste-derived product; and**

- **Other factors, as necessary to identify the minimum standards the waste-derived product shall meet prior to being released by the manufacturer for distribution and use.**

Consistent with a similar Certified Waste-Derived Product application we propose the specifications and descriptions included herein.

SEE ATTACHMENT IV

Mark any attached information as "Attachment IV" below:

- (b) Describe the process, from beginning to end, including a description of:
- Any processing or treatment applied to the waste ingredient(s) prior to producing the waste-derived product;
  - The specific industrial or manufacturing practices and/or technologies used to produce the waste-derived product; and
  - Residual and bypass waste management practices.

Upon onsite verification that the waste shingles do not contain visible evidence of asbestos containing materials, the waste shingles will be stockpiled. After a sufficient volume is stockpiled the waste shingles will be processed using an industrial grinder. The processed fractions will typically include ½" size and fine ground material (typically less than ½ inch (< ½") material. These two fractions will be segregated. Typically, the less than ½ inch material will be sent to asphalt hot mix plants and used as an asphalt oil substitute. The greater than ½ inch material will be stockpiled and used as EnviroPave, a recycled asphalt substitute. EnviroPave will be used alone or blended with varying percentages of crushed aggregate as noted above to produce various blends of material to be used as subgrade, subbase, base course and surface course material.

An industrial grinder specially designed to grind asphalt shingles will be used to grind the shingles and an industrial grinder will be used to grind the aggregate material to make gradations of aggregate. The ground shingles will then be blended with the aggregate material to make variations of paving material depending on the ultimate end use.

Raw materials may also be exchanged with approved suppliers in exchange for processed asphalt shingle material for reuse in conformance with these criteria.

- (c) Submit process flow diagrams and/or schematic diagrams as appropriate, depicting the process described pursuant to (b) above. Mark as "Attachment IV".

SEE ATTACHMENT IV

- (d) Submit the product quality assurance/quality control procedures that will be used to affirm the waste-derived product meets the standards specified pursuant to (a) above.

SEE ATTACHMENT IV

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**ATTACHMENT IV (1)(2)**  
**ENVIROPAVE**  
**Specifications and Restrictions**

**A. Definitions**

1. "Surface Cover" means one or more layers of a specified material of designed thickness, to accommodate the traffic load, placed on base courses. The top layer is sometimes called the "wearing course".
2. "Base Course" means the layer or layers of specified or selected material placed on a subbase or subgrade to support pavement or other structure.
3. "Subbase" means the layer or layers of specified or selected material placed on a subgrade to support a base course or to serve as dust control or industrial cover materials.
4. "Subgrade" means the top-soil surface upon which a subbase or base courses are placed.

**B. Asphalt Shingle Acceptance Limitations**

The following acceptance limitations are currently in existence for the product:

1. No commercial asphalt roofing;
2. No asphalt siding shingles;
3. No asbestos fibers; and
4. No hazardous waste, hazardous substances, toxic substances, or toxic pollutants as those terms are used in the Resource Conservation and Recovery Act, the Comprehensive Environmental Response, Comprehensive and Liability Act, the Hazardous Materials Transportation, Act, the Toxic Substance Control Act, the Clean Air Act and the Clean Water Act.

**C. Specifications**

Product is manufactured from various blends of ground shingles and crushed and screened demolition aggregate-based materials. As noted below, we intend to process a Standard Enviro pave using the following blend that is combined with crusher processed and sized material that may include brick, concrete, asphalt pavement, stone tailings, ledge and similar aggregate-based demolition materials. As noted below, we also would like to request using other blends of Enviro pave that include greater than 40% asphalt shingles mixed with aggregate materials. In some cases we may also use 100% recycled shingle materials only especially where placed on top of aggregate surfaces.

The following specifications shall be met for the products:

**STANDARD ENVIROPAVE:**

1. Maximum roofing shingle content - 40% by weight.
2. Fines:           maximum passing No. 100 sieve: 15% by weight;  
                      maximum passing No. 200 sieve: 7% by weight.
3. Maximum deleterious matter (i.e., organics, paper, metal, etc.): 1% by weight.
4. Maximum screening calculations (mg/kg):

PAHs  
Benzo(a)pyrene

Screening Concentrations (mg/kg)  
35.7

<u>Metals</u>	<u>Screening Concentrations (mg/kg)</u>
Arsenic	11
Barium	750
Cadmium	32
Chromium VI	130
Lead	400
Mercury	13
Selenium	260
Silver	45

#### **OTHER ENVIROPAVE BLENDS:**

*We would also like to pursue other Enviro pave blends using higher concentrations of recycled asphalt shingle (RAS) material. We believe the use of RAS at 40% or 100% blends with recycled aggregate is as safe as asphalt materials being used today, especially given that typical asphalt shingles include as much as 30% aggregate material. For example:*

- 100% ground asphalt shingles
- 80% ground asphalt shingles and 20% recycled aggregate
- 60% ground asphalt shingles and 40% recycled aggregate
- 40% ground asphalt shingles and 60% recycled aggregate

*Further, in some applications we will deliver RAS fines to hot mix asphalt plants to use in their hot mix blends, in lieu of virgin asphalt oil. Our intent is to use RAS blends in a manner consistent with how asphalt pavement is used; however our material will only be used on non-residential sites. We would use the same screening concentrations above for the various other blends that we would like to use.*

- Notes:**
- <sup>1</sup>. Product health based screening concentration calculated by the New Hampshire Department of Health and Human Services.
  - <sup>2</sup>. Equivalent to Risk Characterization and Management Policy (RCMP) S-1 standards for protecting groundwater.

#### **D. Permissible Uses**

1. Base Course and subbase aggregate for the construction of a Portland cement concrete or asphaltic concrete paved lot;
2. Base course and subbase aggregate for the construction of a paved federal, state, or municipal roadway;
3. Unbonded surface course, including the use as a surface course for municipal roads, non-residential driveways, non-residential parking areas, and recreation or exercise trails; and
4. Roadway shoulder aggregate;
5. Capping and cover material for industrial sites, brownfield sites and other non-residential use applications.
6. The 100% recycled shingle blend can be used as an initial low cost subgrade especially on roads and areas that also receive aggregate materials as a wearing surface. Rather than blending recycled shingle materials with aggregates in a pug mill, placing 100% recycled shingles on top of an aggregate layer or placing aggregate material on top of a shingle pavement layer, these materials will bind accordingly into a subgrade material that will serve as dust and erosion control as well as a low cost wearing surface. These areas can be enhanced periodically with more aggregate or recycled shingle material to continue to build-up the wearing course and enhance its performance.

#### **E. Non-Permissible Uses**

1. Surface course for residential driveways;
2. Surface course for residential parking lots; and
3. Playgrounds.

#### **F. Storage and Transportation**

1. Stockpile is to be actively managed and shall comply with the universal facility requirements of Env-SW-1000 of the Rules.
2. Vehicles or containers used to transport product shall be loaded and hauled in such a manner that the contents do not fall, spill or leak. Covers shall be provided to prevent littering and spillage as necessary.
3. A "Recommended Use Guidelines" form, contained in Exhibit A, must be signed by an authorized representative of the user Upon the delivery of each load of the product. A copy of the form must be maintained at the offices.
4. If material is transferred prior to processing, the receiving facility shall be required to comply with all of the requirements of this section.

#### **G. Quality Assurance/Quality Control Procedures**

1. One representative composite sample shall be collected from the product for every 10,000 tons of shingles processed and tested at a certified lab for the following:
  - a. Metals per EPA Method 6010 and 7471 (mercury).
  - b. Poly Aromatic Hydrocarbons (PAHs) per EPA Method 8270.
2. One representative composite sample shall be collected from the product for every 25 tons of shingles processed and tested at a certified lab for the presence of asbestos fibers, using Polarized Light Microscopy (PLM) testing methods.
3. All testing must be completed and the results received by the facility prior to releasing the product for reuse. These requirements will not apply to raw material being transferred to waste shingle-processing facility.

#### **H. Third-Party Inspections**

1. A qualified and experienced third party licensed asbestos inspector retained by the facility shall inspect the facility twice during the asphalt-manufacturing season (approximately April through December). The first inspection should occur approximately in the midpoint of the season and the second inspection should occur prior to the close of the season.
2. During the inspection, the inspector shall:
  - a. Evaluate acceptance and sampling programs, including any approved modifications, as required by this determination. Identify any deviations from compliance conditions set forth in this determination.
  - b. Identify any modifications in the facility's process that are not identified in the application. Identify changes that may modify the physical or chemical nature of the processed shingles, or that may present a situation of nuisance or threat of adverse impacts from the use of this material.
  - c. Sample both a randomly selected stockpile of processed material for the presence of asbestos. The sample shall be analyzed using PLM testing methods.

d. Following the inspection, the inspector shall file a report of the findings with the permitted facility. Said report shall be maintained in a file at the facility and any recommendations made by the inspection shall be promptly implemented.

**I. Reporting**

1. An annual report shall be submitted to the Department by March 31 of the year following the calendar year being reported, containing the minimum information and in the format of the sample annual report contained in Exhibit B.

a. The report shall indicate volume of material received, transferred, processed and reused.

2. Third-Party Inspection Reports shall be submitted to the Department within two (2) weeks of receipt.

**Exhibit A**  
**Recommended Use Guidelines**  
**ENVIROPAVE™**

Manufactured by Building Product Recycling Operations (BPRO) For distribution and Use In the State of New Hampshire as a Certified Waste Derived Product

Product Description

ENVIROPAVE™ is an environmental and beneficial recycled product manufactured from ground asphalt shingles and also from blends of asphalt shingles and crushed and screened demolition aggregate-based materials. In addition asphaltic materials may be added to develop specific gradations for road maintenance and construction materials. The addition of asphaltic materials enhances the superior compaction traits resulting in the prevention of soil erosion and dust. ENVIROPAVE™ may be used as a substitute for virgin crushed aggregates in a wide range of construction products.

Usage

ENVIROPAVE™ makes an excellent road surface for non-paved rural roads, brownfield sites and other industrial sites. It also can be used in roadways, parking lot construction, bridge ramps, embankments, shoulders, subbase, base, roadbed and other non-residential applications.

Applications and Restrictions

ENVIROPAVE™ can be applied at up to a 2-to-1 slope. It is a safe and environmentally beneficial construction material.

The use of ENVIROPAVE™ in residential driveway surface course, residential parking lot surface course, and playground construction is prohibited in the State of New Hampshire.

I understand and accept BPRO's recommended use guidelines and use restrictions for this product.

Date: \_\_\_\_\_ Customer (Company/Municipality): \_\_\_\_\_

Name (Please Print): \_\_\_\_\_ Signature: \_\_\_\_\_

Intended Use: \_\_\_\_\_

**Exhibit B**  
**Example Annual Report for ENVIROPAVE™**

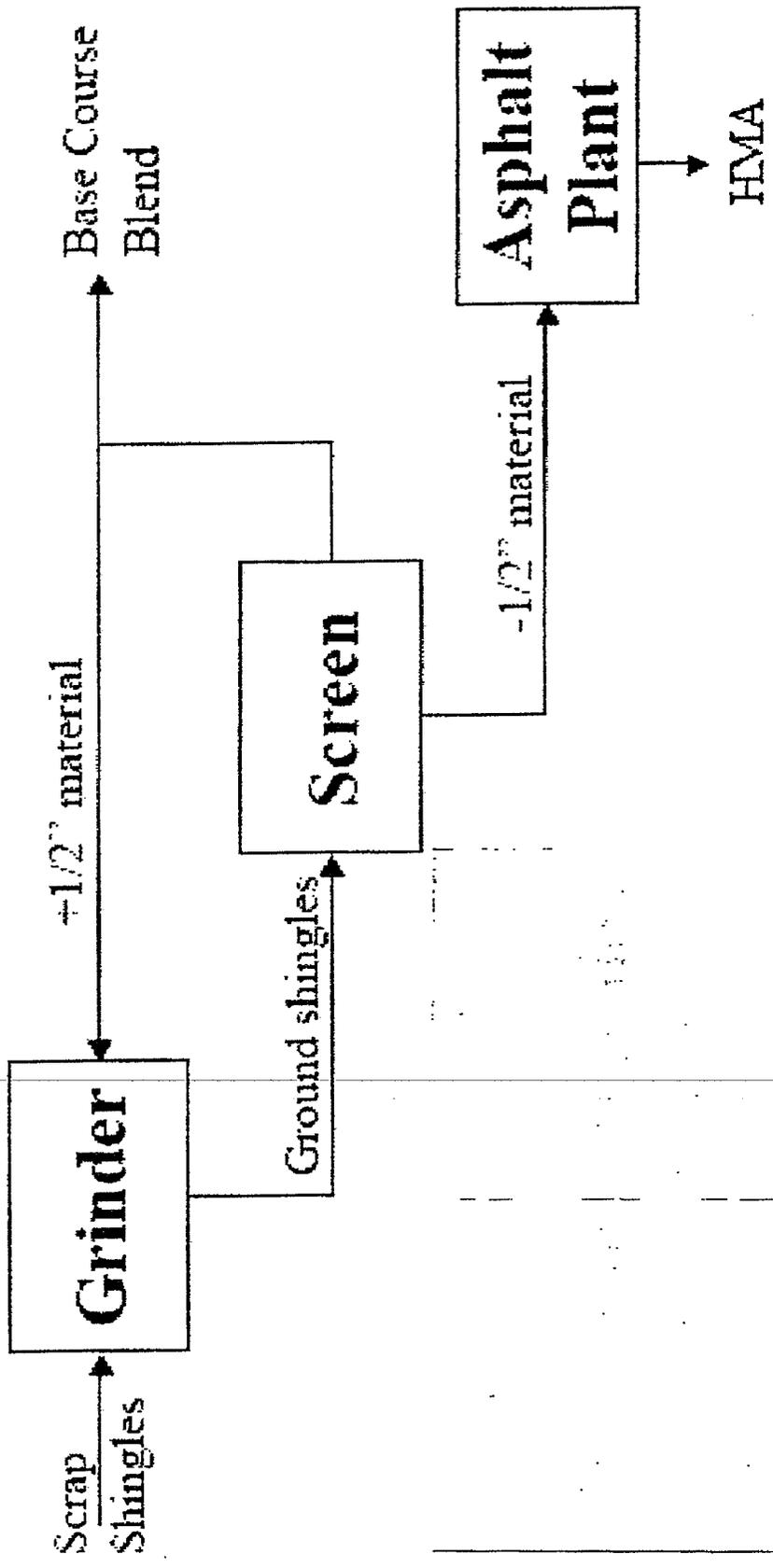
An annual report will be submitted to the NHDES Waste Management Division by March 31 for each preceding year. The annual report will contain the following information as it pertains to materials managed in the prior year:

Volume of Material Received

Volume of Material Transferred to Processing Location

Volume of Material Processed

Chemical and Physical Testing of Processed Material



REVISED 11/15/2011

	<ul style="list-style-type: none"> <li>Other factors, as necessary to identify the minimum standards the waste-derived product shall meet prior to being released by the manufacturer for distribution and use.</li> </ul> <p>Mark any attached information as "Attachment IV(2)(a)" and list the attachments below:</p>
(b)	<p>Describe the process, from beginning to end, including a description of:</p> <ul style="list-style-type: none"> <li>Any processing or treatment applied to the waste ingredient(s) prior to producing the waste-derived product;</li> <li>The specific industrial or manufacturing practices and/or technologies used to produce the waste-derived product; and</li> <li>Residual and bypass waste management practices.</li> </ul>
(c)	<p>Submit process flow diagrams and/or schematic diagrams as appropriate, depicting the process described pursuant to (b) above. Mark as "Attachment IV(2)(c)".</p>
(d)	<p>Submit the product quality assurance/quality control procedures that will be used to affirm the waste-derived product meets the standards specified pursuant to (a) above. Mark as "Attachment IV(2)(d)".</p>

## SECTION V. USE, DISTRIBUTION AND MARKETS

Provide the following information to describe how the waste-derived product will be distributed and used, and to identify markets.

(1)	<p>Describe, in detail, all intended uses of the product:</p> <p>The material is intended to be used as a substitute for virgin asphalt and will be used as subgrade, subbase, base course and surface course as these terms are commonly defined in the asphalt paving industry and as cover material on non-residential sites. We will also seek other uses that are already approved either through ASTM or other third parties.</p>
(2)	<p>Identify potential hazards to the environment, public health and safety which may result from using the product as intended:</p> <p>When used for its intended purposes there are no hazards to the environment, public health and safety associated with this product as it is similar in nature to virgin products already being used.</p>
(3)	<p>Describe all product use and disposal restrictions which are necessary to assure that use and disposal of the product will not pose an increased risk to the environment, public health and safety:</p> <p>The product will not be used as a surface course for residential driveways, a surface course for residential parking lots; and it will not be used in playground construction.</p>
(4)	<p>Demonstrate the existence, or reasonable expectation of the existence, of a market for the waste-derived product, based on the following:</p> <ul style="list-style-type: none"> <li>A comparison of the characteristics and specifications of the waste-derived product or material and the required market characteristics and specifications of the product or material.</li> <li>The benefit that will be achieved by use of the waste-derived product.</li> <li>Information to document existing use of the same or similar waste-derived product and/or a contract to purchase the waste-derived product.</li> </ul> <p>EnviroPave will be a much sought after low cost replacement for virgin asphalt to be used as paving material on non-residential applications including subbase, subgrade, base course and surface course on industrial sites, brownfield sites, roadway shoulder materials, trails and as base course and subbase for the construction of paved federal, state or municipal roadways.</p>
(5)	<p>Estimated market value of the waste-derived product, in dollars per appropriate unit of measurement: \$10.00 per ton</p>
(6)	<p>Describe how the waste-derived product will be distributed for use:</p>

## SECTION VI. DEMONSTRATION OF CRITERIA

Using the information you have provided in Sections IV and V above, provide a written assessment demonstrating how each of the following criteria for certification shall be met by the production, distribution and use of the waste-derived product.

Env-Sw 1504.04 Need. The applicant shall demonstrate a need for the waste-derived product based on the following criteria:

- (a) The waste-derived product shall either:
  - (1) Be comparable in form and function to an existing product in the market place which is not derived from waste, and shall perform as effectively or more effectively than the existing product; or
  - (2) Satisfy an identifiable and unfulfilled need in society without violating the universal environmental performance standards in Env-Sw 1002.
- (b) There shall be an identifiable user or buyer for the waste-derived product
- (c) Waste derived products used for agronomic purposes shall provide an identifiable benefit(s) to the sites to which it is land applied

Env-Sw 1504.05 Product Quality and Quality Control. The applicant shall demonstrate that the production process meets the following requirements:

- (a) Production of the waste-derived product shall neither:
  - (1) Cause a violation of any requirement in Env-Sw 1000; nor
  - (2) Pose a greater risk to the environment, public health and safety than does the production of an existing comparable non-waste-derived product or, if no comparable non-waste-derived product exists, by directly disposing of the waste in accordance with the New Hampshire Solid Waste Rules;
- (b) The physical and analytical characteristics of the waste used to produce the product shall be defined in a written specification
- (c) The physical and analytical characteristics of the waste-derived product shall be defined in a written specification
- (d) The production process shall include quality assurance/quality control procedures to assure the defined specifications shall be met through the production process

Env-Sw 1504.06 Impact on Society. The applicant shall demonstrate that use of the waste-derived product in society shall have a minimal net impact based on the following requirements:

- (a) Use of the waste-derived product as intended shall neither:
  - (1) Cause a violation of any requirement in Env-Sw 1000; nor
  - (2) Pose a greater risk to the environment, public health and safety than does the use of an existing comparable non-waste-derived product or, if no comparable non-waste-derived product exists, by disposing of the waste in accordance with the New Hampshire Solid Waste Rules
- (b) Disposal of the waste-derived product shall not pose a greater risk to the environment, public health and safety than would be posed by directly disposing of the waste from which the product is produced

## SECTION VII. SIGNATURE AND CERTIFICATION OF APPLICATION INFORMATION

The applicant must sign the following statement prior to submitting this application. All copies of the application filed with DES must bear the applicant's ORIGINAL signature. If the applicant is not an individual, an individual duly authorized by the applicant shall sign the application.

To the best of my knowledge and belief, the information and material submitted herewith is correct and complete. I understand that any approval granted by DES based on false and/or incomplete information shall be subject to revocation or suspension, and that administrative, civil or criminal penalties may also apply. I certify that this application is on a complete and accurate form, as provided by DES, without alteration of text.

ANSEL S. GRANDMAISON  
Applicant Name (Print Clearly or Type)

[Signature]  
Applicant Signature

10-7-2011 / REVISED 11/15/2011  
Date