

# Texas Commission on Environmental Quality

## INTEROFFICE MEMORANDUM

**To:** Field Operations and Interested Parties      **Date:** February 12, 2009  
**Thru:** Richard A. Hyde, P.E., Director,   
Air Permits Division  
**From:** Michael P. Wilson, P.E., Section Manager,  
Mechanical/Agriculture/Construction Section  
**Subject:** Recycled Asphalt Shingles (RAS) as Recycled Asphalt Products (RAP) in Hot  
Mix Asphalt (HMA) Plants

This memorandum has been revised to include the requirements when using residential roof tear-off scrap. Previous versions of this memo are void.

The purpose of this memorandum is to authorize air emissions resulting from the use of RAS in the manufacturing of HMA.

1. This memo does not address the transportation, processing, storage, or disposal of solid waste. Contact the Texas Commission on Environmental Quality (TCEQ) Waste Permits Division at (512) 239-2334 to determine whether the specific operation requires a Waste Permit.
2. This memo does not authorize the discharge of storm-water that comes in contact with stockpiled RAS. For questions on Storm Water Permits that may be required please contact the Water Quality Division of the TCEQ at (512) 239-4671.
3. Post-consumer, or Tear-off RAS may contain asbestos. The use of asbestos-containing RAS is not authorized. The U.S. Environmental Protection Agency (EPA) and the Texas Department of State Health Services (TDSHS) regulate asbestos-containing materials. Contact the Asbestos Program of the TDSHS, or the EPA for information on applicable rules and regulations.

The use of RAS in HMA plants is authorized in accordance with the following stipulations:

1. The air quality authorization for the HMA plant must stipulate that the use of RAP is authorized. The amount of RAS used shall not exceed 15 percent of the total mixture weight. The HMA plants using RAS shall comply with opacity and emission rate limits of their air quality authorization.

2. The RAS used shall be limited to manufactured shingle waste known as prompt shingle scrap, which includes out-of-spec or damaged shingles; and residential roof tear-off shingles. The use of residential roof tear-off shingles is subject to the requirements outlined in the "Residential Roof Tear-off" section below. The use of non-residential roof tear-off is not approved.
3. This authorization to use RAS at a HMA plant does not include the process of sizing (shredding) the asphalt tabs prior to introduction into the drum. A specific air quality authorization for the sizing operations shall be required. Please contact the TCEQ Air Permits Division at (512) 239-1250 to determine the type of authorization required.
4. The introduction of RAS into the drum shall follow the same procedures as reclaimed asphalt pavement. That is, RAS shall be added at a sufficient distance downstream from the combustion zone to prevent hot gas scorching and the RAS shall be shielded from the flame by a material dam or recycle collar.
5. The quality of the RAS material to be sized is the responsibility of the owner or operator of the RAS sizing facility. The quality of the RAS material to be used in the hot mix is the responsibility of the owner or operator of the HMA plant.
6. Visible emissions from a RAS storage pile at the HMA plant shall not leave the property for a period exceeding 30 seconds in duration in any six-minute period as determined using the EPA Test Method 22. Fugitive emissions from RAS stockpiles shall be prevented using water sprinklers or an equivalent control method.
7. Residential Roof Tear-Off:
  - A. Upon delivery to the site where the shingles will be sized, the supplier of the tear-off asphalt shingles shall certify that the shingles are from residential buildings, do not contain asbestos, and have not been in contact with hazardous waste. Any uncertified RAS shall be rejected.
  - B. A person trained to identify asbestos containing shingles shall inspect incoming shingle loads into the site where the shingles will be sized. Any material suspected of containing asbestos shall be rejected.
  - C. All visible materials which are not part of the shingle should be removed before grinding including excess wood, paper, metal, and plastics.

- D. Prior to adding the tear-off RAS into the hot mix asphalt, a sample from each load of stockpiled sized RAS shall be analyzed per Tex-217-F to ensure it does not contain deleterious material in excess of 1.5 percent by weight. Deleterious materials consist of any material not part of the asphalt shingle tabs including but not limited to papers, plastics, and wood.
8. In addition to the recordkeeping requirements of the Permit by Rule or New Source Review Permit, authorizing the HMA plant or the RAS sizing operation, the following records shall be kept:
- A. The owner or operator of the HMA plant using RAS shall maintain:
    - i. Hourly and annual production rates of all mix types produced using RAS; and
    - ii. A completed “Sized Asphalt Shingles Delivery Certification Form” (see attachment) for each load of residential roof tear-off RAS used.
  - B. The owner or operator of the facility sizing RAS shall maintain: a completed “Residential Roof Tear-Off Asphalt Shingles Delivery Certification Form” (see attachment) for each load of Residential Roof Tear-off RAS processed. For manufacturer scrap shingles, records shall be maintained confirming the origin of the shingles.
9. The air permit for the HMA plant using this memorandum shall be altered during the next permit action to reflect the use of RAS.
10. If the use of RAS results in an odor nuisance, excessive emissions, or a violation of any condition of the HMA plant air quality authorization, the use of RAS must be discontinued at the facility.

## Sized Asphalt Shingles Delivery Certification Form

### Sized Asphalt Shingle Supplier

Company Names: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Contact Name: \_\_\_\_\_

TCEQ Air Permit Authorization No.: \_\_\_\_\_

### Hot Mix Asphalt Plant

Company Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Contact Name: \_\_\_\_\_

TCEQ Air Permit Authorization No.: \_\_\_\_\_

We the undersigned certify the following:

1. \_\_\_\_\_ tons of ground asphalt shingles have been delivered. (*Enter the number of tons*)
2. All visible materials not part of the shingle, including but not limited to extra wood, paper, metals, and plastics were removed before grinding.
3. TxDOT test method Tex-217-F was conducted on a sample of this load by: \_\_\_\_\_ and the material does not contain more than 1.5% deleterious material by weight.

Note: Deleterious material consists of paper, plastics, wood, and any other material not part of the asphalt shingles.

\_\_\_\_\_  
Asphalt Shingle Supplier (*signature*)

\_\_\_\_\_  
Company Accepting Shingles (*signature*)

\_\_\_\_\_  
Date

*To comply with the TCEQ Air Permits Division memo on the use of Recycled Asphalt Shingles, a copy of this form must be kept at the hot mix asphalt plant site for each load of tear-off asphalt shingles used.*

**Residential Roof Tear-Off Asphalt Shingles Delivery Certification Form**

**Asphalt Shingle Supplier**

**Company Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

**Company Sizing Shingles**

**Company Name:** \_\_\_\_\_

**Address:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Contact Name:** \_\_\_\_\_

**TCEQ Air Permit Authorization No.:** \_\_\_\_\_

We the undersigned certify the following:

1. \_\_\_\_\_ tons of whole asphalt shingles have been delivered. *(Enter the number of tons)*
  
2. The roofing waste material delivered is either manufacturer scraps RAS, or comes from a residential building and consists of asphalt shingles and normal roofing debris only. The material does not contain asbestos and has not been in contact with hazardous wastes.
  
3. Delivered asphalt shingles have been tested or inspected by \_\_\_\_\_ who is trained to identify asbestos-containing materials (ACM). Suspected ACM has been rejected.

\_\_\_\_\_  
Asphalt Shingle Supplier *(signature)*

\_\_\_\_\_  
Company Accepting Shingles *(signature)*

\_\_\_\_\_  
Date

*To comply with the TCEQ Air Permits Division memo on the use of Recycled Asphalt Shingles, a copy of this form must be kept at the site where the sizing of the shingles takes place for each load of tear-off asphalt shingles received.*