

Asphalt Shingle Recycling
Site Management and Operations Plan Requirements
January 10, 2013

Asphalt shingles produced by shingle manufacturers or generated in the construction or demolition of residential buildings (Shingles) are a solid waste pursuant to Part 115, Solid Waste Management, of the Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (NREPA). However, Shingles that are recycled for use as a substitute for raw material in hot mix asphalt or as a fuel supplement in a boiler, industrial furnace, or power plant permitted under Part 55, Air Pollution Control, of the NREPA, are granted a site/source separated exemption from the definition of solid waste (Section 324.11506(6) of Part 115 of the NREPA) if they are handled in accordance with the provisions of the Asphalt Shingle Exemption (Exemption), dated March 27, 2012.

Condition 17 of the Exemption states that Shingle processing and storage must be done either in a building, in an area meeting the waste pile containment rules of R299.4130 of the Part 115 Rules of the NREPA, or in a manner approved in writing by the district supervisor of the Department of Environmental Quality (DEQ), Office of Waste Management and Radiological Protection. Further, Condition 18 requires prior approval from the DEQ before a person can begin accepting Shingles for collection and/or processing. In order to obtain this approval, a comprehensive site management and operations plan (Plan) that details how the Site and recycling operation will be managed to ensure compliance with the Exemption must be submitted and approved. This Plan must identify and contain all of the following elements:

1. Name and mailing address of the person or business collecting and processing Shingles (Operator), name and mailing address of the person or business that owns the site of operation (Site), address of the Site, name and telephone number of the Site operations manager and the name and telephone number of the contact person for the Site owner if the owner is not the Operator.
2. If the Operator does not own the Site, then the Site owner must provide written authorization for the asphalt shingle collection/processing operation.
3. Name and address of asphalt plant, boiler, industrial furnace, or power plant (End User) intending to use the processed Shingles material, a copy of the purchase order or letter of intent specifying the amount of processed shingles the end user intends to use on a monthly/yearly basis, name(s) and telephone number(s) of contact person(s) for the End User(s), along with documentation that the End User is approved to use the processed Shingles materials in their process.
4. Documentation of compliance with local zoning.
5. A demonstration that all other applicable permits, including local and state storm water permits, and air permit, have either been applied for or obtained.
6. A scaled drawing/map of the Site that shows the layout of the operation, including ingress/egress; dedicated areas for inspection of incoming loads, storage of unprocessed asphalt shingles, processing area, and storage of finished products; equipment; on-site buildings; storm water controls; and other significant features such as streams, wetlands, and drains in relation to the Site property boundaries.

7. A statement that vehicles used to transport the Shingles shall comply with the Michigan Vehicle Code, 1949 PA 300, as amended, and the rules promulgated under that act, and that the Shingles will be contained in a manner that prevents loss to the environment during transport and delivery.
8. A description of how the Operator will ensure that only Shingles from either shingle manufacturers or from the construction or demolition of residential buildings of four units or less will be accepted at the Site, such as a certification by each driver that delivers Shingles to the site.
9. A description of the inspection/screening procedures and methods that will be used to ensure that loads of Shingles delivered for recycling do not contain more than ten percent (by volume) solid waste or other materials, a description of how the Operator will communicate to contractors and haulers that loads with excessive amounts of solid waste or other materials will not be accepted and, if unloaded, must be removed from the Site by the contractor or hauler, and a description of how the Operator will demonstrate that Site employees are trained on the inspection/screening procedures.
10. A description of how the Operator will work with contractors and haulers to ensure that asbestos containing materials are not delivered to the Site, how the Operator will demonstrate that Site employees are trained to identify asbestos containing materials in incoming loads delivered by contractors and haulers, and how asbestos containing materials will be handled if unloaded. Details regarding the inspection, testing, handling, and disposal of Shingles loads containing asbestos material can be obtained from the DEQ, Air Quality Division, and will be specified in the air permit issued by the AQD.
11. A description of how the Shingles will be processed to ensure that 95% of the product generated for use in hot mix asphalt is less than 5/16 inch by 5/16 inch in size and the flake product generated for use as a fuel supplement meets the criteria specified by the End User(s), including a description of each piece of equipment used in the process and how it is manned by Site employees and a drawing of the process equipment layout, that identifies each step/sequence of the process from beginning to end. The Plan must also describe how and when waste and other materials will be separated and removed from the Shingles during processing, and how any water used in or generated by the process will be collected and managed so there is no release to the environment. This includes fluids used in the operating equipment.
12. A description of how the Operator will keep track and manage the incoming Shingles and outgoing products to ensure that at least 75 percent of the Shingles accepted at the site each calendar year will be recycled or removed by the end of that year (Condition 4 of the Exemption) and that all residual solid waste is disposed of at a DEQ-permitted and licensed solid waste disposal area that is consistent with the county solid waste plan in which the Site is located and in compliance with local flow control agreements (Condition 8 of the Exemption). This includes identifying what records the Operator will keep, including source, volume or weight, and percentage of solid waste for each load, and the date, source, and reason for any rejected loads. The Plan must describe the procedures the Operator will follow to assure that recyclable materials are stored in an environmentally sound manner and that solid waste is stored in covered roll-off boxes and removed from the site within one week of separation from the Shingles. The Plan must also describe what records the Operator will rely on to demonstrate compliance in the annual report submitted to the DEQ by October 31st of each year (Condition 9 of the Exemption).

13. A dust control plan, in accordance with DEQ, Air Quality Division requirements. Guidance can be found on the DEQ Web site (click on "Air" and "Clean Air Assistance" and then under the heading "Compliance Assistance", click on "Dust and Fallout").
14. A DEQ-approved Storm Water Pollution Prevention Plan (SWPPP), if required, specific to the Site, and designed to ensure that storm water runoff from the Site will not contain contaminants associated with the processing or storage of Shingles. The Plan should identify the Certified Storm Water Operator responsible for supervision over and maintenance of the storm water control measures identified in the Site's SWPPP.

Be advised that no collection, storage, or processing of Shingles shall occur until the following is received or completed:

- Proof that the DEQ, Air Quality Division has issued the required air permit(s).
- Proof that the End User is approved by the DEQ, Air Quality Division to use the processed Shingles in their process.
- Proof that the DEQ, Water Resources Division has issued an industrial storm water permit.
- The DEQ verifies that the Site is constructed in accordance with the DEQ-approved Site Management and Operations Plan.