



# Procedures for Asbestos Acceptance, Prevention and Response

## Metro Transfer Stations

### TABLE OF CONTENTS

<b>PURPOSE</b> .....	<b>1</b>
<b>BACKGROUND</b> .....	<b>1</b>
<b>HAZARDS AND COMMON TYPES OF ASBESTOS</b> .....	<b>2</b>
Friable Asbestos .....	2
Non-Friable Asbestos .....	2
<b>PREVENTING ACCEPTANCE OF ACM IN THE TRANSFER STATION</b> .....	<b>3</b>
Materials Suspected to Contain Asbestos .....	3
ACM Rejection Protocol .....	4
Partial ACM Rejection Protocol .....	5
<b>IF SUSPECT ASBESTOS MATERIAL IS DISCOVERED IN THE TRANSFER STATION</b> .....	<b>6</b>
Cleanup Procedures for Asbestos in the Transfer Station .....	7
Follow-up and Cost Recovery .....	8

### **PURPOSE**

This document is a standard operating procedure to prevent the acceptance of asbestos-containing material (ACM) at the Metro transfer stations and a response plan when suspect ACM is found in the transfer station.

### **BACKGROUND**

Asbestos is a common term for a group of naturally occurring minerals that were used in thousands of building products in the U.S., most extensively in the 1940s through the 1970s. Asbestos was particularly useful because of its excellent properties for residential and industrial building construction including:

- It is flexible and durable
- It does not burn or conduct heat or electricity
- It is chemically resistant
- It has good friction and wear properties

To protect public safety, asbestos became highly regulated in the 1980s. Asbestos workers, safety, training and removal are regulated by OSHA; disposal is covered under EPA's Toxic Substances Control Act, EPA's Clean Air Act and Oregon Revised Statutes and Administrative Rules. These regulations included a phase-out period for manufacturing asbestos-containing building materials and for using asbestos in

residential and industrial construction. The regulations also included specific requirements for removal and management of asbestos in-place, disposal, handling methods and safety training for people who abate, manage or handle asbestos. People who own their own home and are conducting remodeling themselves within the home are exempt from asbestos removal work practice requirements; however, owner-occupants who do their own remodeling must properly bag, label and dispose of asbestos-containing waste materials in compliance with Oregon rules and take properly bagged and labeled asbestos-containing waste to disposal sites permitted by the Oregon Department of Environmental Quality (DEQ) to receive asbestos waste.

Metro's Solid Waste Disposal site permits for both transfer stations, issued by the DEQ, prohibit acceptance of friable and non-friable ACM. Inadvertent discoveries of ACM are to be handled in accordance with the procedures below.

## **HAZARDS AND COMMON TYPES OF ASBESTOS**

Asbestos is a carcinogen which is known to cause lung cancer, asbestosis and mesothelioma. Mesothelioma is an aggressive and deadly form of cancer.

There is a latency period between exposure and illness. Symptoms of an asbestos-related illness may not appear until many years following exposure. Smoking is known to increase risk.

Detecting asbestos is difficult because it is invisible to the naked eye, does not have any particular odor or taste, and requires highly-specialized equipment. Recognizing materials that may contain asbestos and using safe work methods when handling these materials are the best way to prevent exposure.

Since asbestos was used in more than 3,000 building materials in the last century, it is impossible to list all of the materials that could potentially contain asbestos. Products manufactured in the United States since 1986 are not likely to contain asbestos; however, asbestos is not banned from use in products and may be contained in imported construction materials. Metro's screening procedures have been developed with the intent to prevent acceptance of the most common ACM and those posing the greatest risk due to their friable nature.

### **Friable Asbestos**

The term friable means asbestos fibers (dust) that are or could become airborne, creating a serious inhalation hazard. A material is friable when it can be crumbled, pulverized, or reduced to powder by hand pressure when dry. Other ways asbestos materials can become friable are degradation from weather or time, sanding, sawing, drilling, crushing, grinding and dropping or breakage.

### **Non-Friable Asbestos**

A few types of ACM are considered non-friable, meaning the asbestos fibers are unlikely to become airborne as long as the material remains intact. Non-friable materials pose very little health hazard when they are handled carefully. In non-friable materials, the asbestos fibers are bound up in a matrix that holds the fibers together. Examples of non-

friable materials are cement asbestos board (Transite) and vinyl asbestos tiles. These materials can become friable as they degrade over time or with weather exposure. In addition, they can become friable if damaged or broken in the removal process or by waste processing equipment in the transfer stations.

## **PREVENTING ACCEPTANCE OF ACM IN THE TRANSFER STATION**

Metro does not knowingly accept friable or non-friable ACM at its transfer stations. However, in many instances, waste is generated by one entity and hauled by another. This limits the extent to which Metro can effectively enforce standards at the point of generation. Since asbestos can be in so many different products, it is difficult to provide simple guidance aside from recommending to generators they hire an accredited survey professional to identify asbestos-containing materials prior to remodeling or demolition and properly abate asbestos prior to remodeling/demolition. DEQ rules and Oregon law require specific handling, packaging and disposal requirements for asbestos-containing waste materials. DEQ rules require asbestos surveys of all but residential remodeling projects. However, since some generators are not required to conduct surveys, Metro has identified a list of the most common materials that may contain asbestos and Metro requires analytical test results for each before they can be accepted at Metro transfer stations.

DEQ has requested Metro to screen for several materials suspected to contain asbestos. These include: interior textures (spray-on, trowel-applied and skim/brown coats); insulation (block, boiler and spray-applied sink undercoating); exterior walls (stucco); gaskets (furnace, boiler and woodstove); roofing materials (tar paper, felt, Nicolite paper and silver/white roofing paint); and various compounds (window glazing, cements, adhesives, caulks, patching and vapor barrier products). Analytical test results will be required to accept these items at Metro transfer stations effective April 1, 2017.

Metro has taken additional time to develop an effective outreach strategy and communicate to key customer groups about these requirements.

### **Materials Suspected to Contain Asbestos**

These suspect materials are grouped according to where they may be found within a structure, system or component constructed prior to January 1, 2004:

- Ceilings: acoustical tiles, glue dots, and plaster
- Flooring: vinyl tiles (9" x 9" and 12" x 12") and sheet vinyl
- Insulation/fireproofing: Spray-applied, vermiculite, monokote, thermal system insulation (TSI) e.g. Aircell, Magnesia or Mag (fiberglass, cellulose and mineral wool are exempt from testing requirement)
- Insulation: block, boiler and spray-applied sink undercoating
- Surfacing materials for interior wall and ceiling systems: textured surfacing material that covers the entire surface of the wall and or ceiling system e.g. spray-on, trowel-applied, skim or brown coats, orange peel, and "popcorn" texture

- Exterior walls: cement siding shingles (Transite/CAB)
- Stucco
- Heating: White TSI paper that is complete wrap or seam tape on ducting, air-duct cement and insulation
- Fire doors, fire/kiln brick and fireproofing
- Gaskets: furnace, mechanical (not automotive), boiler, and wood stove
- Roofing materials: tar paper, felt silver/white roofing paint, Nicolite paper (white paper used under cedar shingles and parapet metal siding)
- Various compounds: window glazing, adhesives, caulks, patching, mastics and vapor barrier products (plastic or polyethylene synthetic materials such as “Tyvek” are exempt from testing)
- Electrical switch gear, circuit boxes and fuse panels from industrial applications and some residential applications. Electrical wiring with cloth insulation. (Wiring commonly referred to as Romex is exempt.)

### **ACM Rejection Protocol**

While it is the generator’s responsibility to determine if their waste contains asbestos, the haulers bringing that waste to the Metro transfer stations have requirements to provide documentation stating that any materials suspected to contain asbestos meet acceptance standards per Oregon Administrative Rules OAR 340-248 (1% or less ACM by weight).

In addition, Metro has instituted the following practices to prevent the acceptance of ACM at its transfer stations:

- Metro has engaged in extensive outreach efforts to contact haulers, building trade contractors and do-it-yourself home improvement enthusiasts and inform them of Metro’s procedures to prevent the acceptance of ACM.
- New and existing Metro account holders are notified of acceptance rules and procedures including changes or updates as they are implemented.
- Metro’s Recycling Information Center advises callers inquiring about disposal options for construction, remodeling and demolition debris and encourages generators to conduct an asbestos survey in addition to the requirement to provide analytical test results for certain materials suspected of containing asbestos.
- Metro’s website includes information on acceptance standards, materials that can only be accepted with negative analytical test results and other resources to assist building trade contractors and homeowners.
- Site signage informs customers that materials suspected to contain asbestos cannot be accepted unless analytical test results indicate materials contain 1% or less asbestos.
- Once a customer enters the site, they are asked if their load contains material from a residential or commercial remodel, construction or demolition project. If the answer is yes, they’re asked whether an asbestos survey was conducted by a certified professional. If no, the load is not rejected but is subject to further screening.
- All customers delivering loads containing construction and demolition materials are required to complete the Metro waste acceptance form for every load.

- If the structure was constructed prior to January 2, 2004 and the customer did not conduct a survey, they are asked if they have any of the items listed above under **Materials Suspected to Contain Asbestos**. If they do, analytical test results indicating each material contains 1% or less asbestos are required for Metro to accept the items.
- In some cases, suspect materials may be detected by the spotter during the load inspection process but before the customer unloads. In these cases, the load will be rejected unless negative analytical test results can be provided for each suspect material.
- Load spotters are responsible for reviewing the survey, analytical test results and Metro waste acceptance form and verifying the load contents match the description of the material on the documents. This is accomplished by visual inspection from a ladder or the ground. This process is problematic since materials are often buried or hidden in loads. A second screening occurs after the load is tipped.
- Metro prohibits the acceptance of flat/built-up roofing from all sources, even if accompanied with analytical test results.
- Customers with rejected loads are provided with resources to assist them to collect samples of suspect materials and submit them to an analytical laboratory for testing. Non-business customers (homeowners) that have a small amount of suspect material are provided with bags and given the option to leave the site, bag up the suspect material and return to the hazardous waste facility (HWF) where a maximum of two 25-pound bags of ACM can be accepted.
- Rejected loads are documented by the spotters and kept on file at the scale-house.
- If the load contains construction and or demolition, the spotter records it on a log, collects key documents, assigns the load a unique tracking number and adds the number to the documents and the spotter's log. If the documentation is inadequate or shows the load may still contain ACM, the load is rejected and logged as such.
- Copies of the documentation, spotters' logs and scale-house log are scanned and archived daily. The following retention schedule will apply:
  - 2 year retention for logs, forms and sample results collected, created in the procedure for suspect load screening.
  - 5 year retention for documentation concerning "hot loads" or loads determined to contain asbestos containing materials.
- Customers who do not comply with the procedures may be charged for analytical test and abatement fees or additional fees that are consistent with Metro's load check procedures, policies and Metro Code.

### **Partial ACM Rejection Protocol**

Only the following materials are acceptable for partial rejections:

- Vinyl tiles (isolated and/or bagged in load)
- Furnace and wood stove rope gaskets
- Sink undercoating
- Undisturbed mastic on base cove and non-vinyl flooring
- Felt paper isolated or bagged in load
- Sash type vintage windows with glazing intact
- Undamaged switch gear and electrical boxes
- Cloth wiring isolated in load

If material is not able to be accepted, due to lack of documentation or age of material, the inspector determines if the material is sufficiently isolated or bagged.

If the material is sufficiently isolated and/or bagged and contained, then:

1. The customer is notified that we cannot receive the material without test results, and they are directed to physically separate and ensure the material doesn't leave the vehicle or the trailer prior to dumping.
2. The customer is given a dash placard signifying a partial rejection. The customer is told to keep the placard visible at all times.
3. The inspector calls the bay with a vehicle description and a description of the material being rejected.
4. The spotter then confirms the call from the inspector regarding vehicle type and material type.
5. To ensure the material does not leave the vehicle or trailer, the customer is then observed by the door spotter and all floor spotters during unload.
6. As a final check, the customer's vehicle is inspected prior to leaving the bay to ensure the rejected material was not left on the bay floor.
7. The placard is then retrieved by the spotting staff and the customer is directed out of the bay.

## **IF SUSPECT ASBESTOS MATERIAL IS DISCOVERED IN THE TRANSFER STATION**

**NOTE: Materials will become friable** if they are not kept wet, and if they are subject to major breakage, sanding, sawing, drilling, grinding, being pulverized, compacted, crushed or dragged on the ground.

If the suspect material has been delivered in a waste compactor load (rear loader, side loader or compacted drop box typically used for residential food waste/wet loads) transfer station staff will wet the material and push the load into the compactor for transport to the landfill to avoid any possible exposure. Staff will not open bags or dig through this material.

If the suspect material has been delivered in a dry waste load (no food waste):

1. Assume the suspect material is asbestos unless analytical results demonstrate otherwise.
2. All unprotected personnel must leave the area.
3. All responding staff must have at least two-hour asbestos awareness training.
4. Don respiratory protection (HEPA cartridges on a half-mask or full-face respirator), Tyvek coveralls and gloves.
5. Wet the entire suspect load to minimize the potential for airborne dust. Do not soak to the point that runoff is created.
6. To collect a sample (even just to look at it more closely), use Level C PPE, wear gloves, make sure the sample is wet and seal it into a zip-lock bag. Do not carry uncontained asbestos materials around the site or take them indoors. Do not disturb the material any more than is necessary. Date and label the sample. Take the sample to a laboratory for analysis.

7. Cover the load with six-mil plastic sheeting.
8. While waiting for the test results, the suspect ACM should be segregated and cordoned off to prevent inadvertent mixture or disposal of the material. Facility staff will continue to monitor the material for potential releases due to the material drying out and becoming airborne. Continue to wet the material as needed. Document the load on a load check form, attach photos and include information obtained from the driver and scale-house.
9. If the analytical results prove the material does not contain asbestos, it may be processed as a solid waste. Attach analytical data to the load check form.

**In some cases, it may be more effective and efficient to assume the material does contain ACM and handle it as such without sampling the materials.**

**If the analytical results prove the material DOES contain more than 1% asbestos, follow the procedures outlined below.**

### **Cleanup Procedures for Asbestos in the Transfer Station**

Metro HHW staff who have completed the two-hour asbestos awareness training will determine whether the material to be cleaned up is below or exceeds the threshold amount referenced in OAR340-248-0250 2(g), which provides an exemption from many asbestos handling requirements for a project that involves less than three square feet or three linear feet of ACM. In most cases, a load that contains a small amount of asbestos should not be picked through in order to remove the asbestos. Doing so may expose workers to fibers that are already mixed with the other waste.

If the material to be cleaned up exceeds this amount, a certified asbestos abatement contractor will be utilized to clean up the material. While awaiting the contractor, the material must be kept wet, covered, delineated and anyone not wearing adequate PPE is to be kept away from the area.

DEQ shall be notified, in writing by the Solid Waste Operations Staff, within 24 hours of sample results that indicate the material is indeed ACM. Notification should be made to DEQ report line ([deqnwrasbestos@deq.state.or.us](mailto:deqnwrasbestos@deq.state.or.us)) the report should include a copy of the incident report, analytics and any other supporting information.

**The Metro Transfer Station contractor shall contact and schedule the incident remediation whenever Metro staff are not able to complete a cleanup. Whether the material is to be cleaned up by Metro staff or by a contractor, DEQ must provide a variance to the negative pressure enclosure (NPE) requirement prior to cleanup.**

If the total quantity of material is below the exemption threshold, Metro or contractor personnel who have received the two-hour asbestos awareness training may clean it up according to the following procedure:

1. Ensure ACM is adequately wetted and covered at all times to prevent airborne exposure.
2. Safe work methods and PPE are the best protection from potential asbestos exposure. Use a full-face air purifying respirator or self-contained breathing apparatus. Tyvek suits and hoods provide good protection from asbestos dust.
3. Plan to use wet methods for clean-up: spray down the entire area before disturbing any of the material. Use overhead misters throughout the process if possible. Spray surfactant may be used.
4. If possible, place six-mil plastic sheet on the ground in the work area to prevent additional contamination. Contain all of the material into a six-mil drum liner and seal it with duct tape. Each bag must then be double-bagged into a yellow asbestos bag and sealed again. The bags must be properly disposed of as asbestos-containing waste material (ACWM). Note that picking through the debris to recover asbestos may create more potential for exposure. It may be more feasible to contain other debris along with the asbestos material.
5. Make sure the load is thoroughly wetted during the removal and loading process.
6. Clean up the area where the load was to ensure that there is no visible debris remaining. If using brooms, make sure the area is wet. A HEPA vacuum is also effective for this purpose.
7. Once the area is cleaned up so there is no visible debris, hose down the area completely. If other waste in the area is wetted, load that waste into transport trailers as well.
8. Properly dispose of the isolated ACM. Metro's solid waste permits allow for the HWF to accept up to two 25-pound bags of ACM from a single source. Any cleanup of an exempt amount should be well under this limit. Follow the HWF asbestos standard operating procedure (SOP) for asbestos storage and disposal.

### **Follow-up and Cost Recovery**

Copies of all documentation from unacceptable waste incidents will be submitted to the transfer station operations manager. Customers will be contacted and costs recovered, if appropriate.

Cost recovery may include analytical testing, Metro or transfer station staff labor, supplies such as personal protective equipment, abatement, transport and disposal costs, lost operating capacity, and all other fees or penalties under Metro Code.