



MEMORANDUM

FROM: Brian DePorre, Technical Manager, brian.deporre@usecology.com, 734-699-6215
SUBJECT: Prevention of Leaking Shipments to US Ecology Michigan (USEM/MDI/WDI)
DATE: February 15, 2019

Protecting human health and the environment is a top priority at US Ecology. Preventing leaking shipments is necessary to protect human health and the environment, to maintain the trust of the host communities in which US Ecology facilities are located, and to comply with DOT and RCRA regulations.

US Ecology Michigan's host community has expressed concern to US Ecology, US EPA and the Michigan Department of Environmental Quality (MDEQ) about preventing leaking shipments. We take this concern very seriously and ask for your help to ensure shipments do not leak. A list of recommended best management practices for preventing leaking shipments is attached.

Generators: Your signature as generator and/or offeror certifies hazardous material has been properly packaged to prevent residue on the outside of the package as well as to prevent leakage during transportation. Failure to comply could result in DOT fines beginning at \$7,500 per occurrence. Further, MDEQ may randomly inspect shipments arriving at USEM and may take action on any leaking containers.

Transporters: DOT regulations prohibit transporters from accepting hazardous material that is not packaged to prevent residue on the outside of the package and to prevent leakage during transportation. Failure to comply could result in DOT fines beginning at \$7,500 per occurrence; render the driver, vehicle and/or cargo out of service until the conditions are corrected; impact your Compliance Safety and Accountability score, identifying you as a high-risk motor carrier.

Your cooperation is essential to maintaining your DOT and RCRA compliance while also maintaining the trust and confidence of our regulators and host community.

Questions may be directed to your Customer Service Representative at 800-592-5489 or to Brian DePorre, USEM Technical Manager, 734-699-6215, brian.deporre@usecology.com.

Thank you for supporting this important effort and helping us protect human health and the environment.

Attachment: Best Management Practices to Prevent Leaking Shipments

BEST MANAGEMENT PRACTICES TO PREVENT LEAKING SHIPMENTS

Generator

1. Don't create soil stockpiles in low areas that get flooded when it rains.
2. Cover soil stockpiles to prevent rainwater infiltration.
3. If it rains and soil absorbs excess moisture that may reasonably be expected to separate in transit, take steps to reduce moisture content before shipping. Examples: allow time to air dry; mix to aerate and accelerate drying; add inert absorbent*.
4. When uncertain if liquid-solid separation will occur in transit, a paint shaker test may be a good predictor of whether separation will occur. A representative sample of the waste to be shipped may be placed in a sample container that is placed on a paint shaker and shaken for 30 minutes. If no liquid separation has occurred after 30 minutes of shaking, it is probably unlikely that separation will occur in transit.
5. Designate someone to be responsible to visually inspect each shipping container at the job site just before loading to confirm no free liquids, no holes in tarps or container walls/floor and effective tailgate seal. Telling transporters that they should provide equipment that satisfies these requirements is a good start. But inspections should occur at the job site just before loading to ensure these criteria are satisfied.
6. Reinforce the Transporter Best Management Practices listed below.

*Addition of drying agents may not be allowed by regulations for certain waste types (e.g. PCB oils). When drying agents are allowed, USEM's landfill permit requires drying agents be inert (not biodegradable). Examples of inert drying agents include floor dry or lime-based reagents such as cement kiln dust. Polymers are not recommended. If drying agents are used, they must be identified in the waste profile and a safety data sheet included. If you need assistance with drying agent recommendations and dosages, US Ecology will be happy to help.

Generator and Transporter

1. Do not load waste into shipping containers during heavy rain or snow.
2. Keep empty shipping containers covered to keep out rain and snow.
3. If rain water enters empty shipping containers, do not load waste on top of standing water in shipping containers; remove and appropriately manage the water and then load the dry shipping container.
4. Use an enhanced liner (example: PacTec Transpac).

Transporter

1. Use tailgate seal enhancements such as special gaskets, marine grease, "Plug N 'Dike", cement kiln dust, bentonite clay or other inert absorbents added between the waste and the tailgate.
2. Confirm tailgate binders are tightened securely. Do not loosen tailgate binders in transit. Once at USEM, do not loosen binders anywhere on site until in position to offload and only when directed to do so by USEM personnel.
3. Ensure integrity of shipping container before loading; no holes in metal walls or floor.
4. Ensure integrity of shipping container tarp (if applicable) to keep out rain; must fully cover the container, be sealed on all sides, and not have holes through the tarp.
5. Use shipping container tarp bows to better shed rain/snow.
6. Secure shipping container tarps. Bungees should not be the sole means of securing tarps because bungees may stretch in strong wind and let rain water enter the shipment.