



Environmental
Protection Agency

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Interim Guidance for Temporary Salt Storage Associated with 2011/2012 Deicing Season

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This document is specifically designed to provide guidance associated with temporary excess salt storage resulting from the 2011/2012 deicing season. Many public and private entities were not able to utilize all the salt that they were contractually obligated to use during the 2011/2012 season. As a result, many operators are finding themselves in a position to store excess salt or pay for storage to their associated distributor.

Ohio EPA offers the following guidance as interim measures for protecting water resources until a more comprehensive guidance document is provided. It is our expectation that the comprehensive guidance document for salt storage and handling will be finalized during September 2012. It is also important to note facilities covered under existing NPDES Storm Water Permits such as an Industrial Permit or MS4 permit must revise the current Storm Water Pollution Prevention Plan to incorporate the new piles.

The following items should be considered where excess salt storage is expected:

Evaluate Need vs. Risk. Each facility operator should evaluate the need for excess salt storage vs. the potential risk of contaminating water resources. Many facilities are generally not designed to accommodate this type of storage. This could potentially lead to poor management practices due to site constraints. Ohio EPA strongly recommends that the operator consider paying for excess storage, as risk increases with improper storage. Each operator should also consider selling excess salt to other entities with proper storage areas such as universities, school districts, large commercial sites, etc. Poor management could result in contamination of surface water and/or ground water, including water wells, with potentially very expensive remediation costs.

Store salt in a well-designed, existing structure if possible. If it is necessary for a facility operator to assume responsibility for storing excess salt, the operator should evaluate current conditions and determine available storage in existing covered storage areas, namely an existing salt storage building. In addition, the operator should evaluate the feasibility of using other existing storage or maintenance buildings to temporarily store the salt, such as vacant buildings or a warehouse.

Any temporary salt storage facilities should be properly sited and designed. It is understandable that existing buildings may be filled to capacity. Temporary three-sided structures with a solid concrete base as high as the salt-contact zone and a roof are an alternative. Though more expensive, they can be easily adapted to size constraints and can be very accessible and durable. If it is not feasible to store the salt in a building, it is very important that the salt is completely covered with a durable and waterproof tarp. The perimeter of the cover should be weighted down around the edges. Additionally, weight should be placed high enough on the pile to minimize slackness. Cover should be provided immediately and remain until there is ample room in the permanent storage facility. At that time, the excess salt should be moved to the permanent structure within 24 hours following the removal of the cover.

Additional considerations for any temporary salt storage facility:

- **Siting evaluation:** A minimum buffer of 300 feet should be considered when storing excess salt. The buffer should be applied to all streams, wetlands, storm sewers, roadside ditches, private wells and/or sensitive areas where high infiltration rates are expected (i.e. dry wells and permeable soils). The storage of excess salt should be avoided within the source water protection area of a public water system and 100-year flood plains. All of these features can be located on electronic maps accessible at www.ohioerin.com
- **Run-off/Run-on considerations:** Minimize the run-off/run-on potential by limiting the drainage area where excess salt is stored to the maximum extent practical. Earthen berms may be utilized to divert water away from piles and provide containment, if necessary, of potentially contaminated storm water for disposal or re-use. Please understand the discharge of contaminated storm water from containment areas is prohibited.
- **Storage Pad:** All excess salt should be stored on an impervious pad to prevent salt from infiltrating into the subsurface. Pad thickness and material should be capable of supporting the pile and the associated heavy equipment, thereby preventing cracking. Asphalt or concrete are preferred. All existing pads should be inspected for cracks and any cracks should be sealed prior to storage.