



BRINE SPILL CLEANUP

Procedure #: UHS-1

(3/2020)

Narrative:

Brine spills or brine releases can destroy vegetative cover, contribute to soil erosion, increase sediment load in surface water, degrade surface water and groundwater quality, and negatively impact aquatic life. Prompt clean-up response by the responsible party will lessen the impact to public health, safety, and the environment.

Procedure:

1. For spill reporting requirements, see Procedure #: UHS-19.
2. Locate the source and stop the leak.
3. Construct a berm, dike, or other containment structure to contain flow of lost fluid.
4. Immediately begin recovery of all lost fluid.
5. Check depth of brine penetration in the soil. Research if the spill area was previously impacted by brine contamination.
 - a. For spills in locations with previous brine contamination, contact the Kansas Department of Health and Environment (KDHE) for advice on cleanup levels to be achieved for the new spill.
6. Clean up or remediate impacted soil, clean-up methods include:
 - a. Flush the Impacted Area: Flush the impacted area with fresh water or KDHE approved liquid. Begin flushing at the up-gradient boundary of the impacted area. The flush water must be recovered in a manner approved of by KDHE. Disposal of flush water collected in the containment area must be approved of by KDHE. Tilling the soil to the depth of spill penetration may be beneficial if the soils in the impacted area dry out before initial flushing can be completed. Continue flushing with water until the chloride concentration in the flush water is equal to or less than 400 mg/L (or to a level approved of by KDHE if natural background chloride is greater than 400 mg/L).
 - b. Excavation and Disposal of Impacted Soils: Disposal of impacted soils must be approved of by KDHE and authorized by the Bureau of Waste Management (BWM). Replace impacted soil with uncontaminated soil. Soils containing less than 1,000 mg/kg chloride do not require further remediation.
 - c. Other methods as approved by KDHE.

7. Collect soil and/or water samples for chloride analysis. The sample analyses must be done by a laboratory certified by KDHE. The KDHE may split samples with the responsible party.
8. Notify KDHE if the chloride concentration in the flush water remains above 400 mg/L, or if soil chloride concentrations below 1,000 mg/kg cannot be achieved. In such cases the site may be referred to the Bureau of Environmental Remediation (BER) for further cleanup action.