

Standard Operating Procedure: Vehicle and Equipment Storage - DPW & Fire Stations

SOP Description:

- All floor drains that discharge to storm sewers will be sealed/plugged. New floor drains will discharge to a sanitary sewer.
- All floors will be constructed of cement or other impervious materials to prevent contaminants from leaching into the soils or groundwater.
- Equipment wash areas will discharge into a sanitary sewer line. Depending on the amount of oil, grease and other pollutants, pre-treatment of wastewater may be needed before it enters the sanitary sewer.
- Spill kits will be available and clearly marked to respond quickly to any automotive fluid leaks for both inside and outside vehicle storage.
- Vehicles parked outside for extended periods of time or overnight will be parked away from storm drains.
- If equipment is to be stored outside long term, all fluids will be drained first. Store idle equipment containing fluids under cover.

Measurable Goals:

Spill kit availability

Floor drains connected to sanitary sewer

Timeline/Implementation Schedule:

Employee training

Spill response and prevention

Notes:

Standard Operating Procedure: Vehicle and Equipment Maintenance - DPW

SOP Description:

- Keep maintenance and repair activities indoors.
- Avoid hosing down work areas, but if work areas are washed, collect the water and direct to sanitary sewer.
- Post signs to indicate storm drains and sinks are not to receive hazardous wastes.
- Designate a special area, with no connections to the storm drain, to drain motor fluids.
- Collect leaking or dripping fluids in drip pans or containers, and drain all fluids immediately.
- Promptly transfer used fluids to proper waste or recycling drums.
- Keep equipment clean, don't allow excess grease and oil buildup.
- If temporary work is being done outside, use a tarp, ground cloth, or drip pans to capture all spills and drips, and dispose of properly.
- Regularly inspect vehicles and equipment for leaks and repair immediately.
- Spill kits will be available and clearly marked to respond quickly to any fluid leaks for both inside and outside maintenance activities.

Measurable Goals:

Number of signs posted
Spill kit availability

Timeline/Implementation Schedule:

Employee training
Spill prevention and response
Regular maintenance schedules

Notes:

Standard Operating Procedure: Vehicle and Equipment Washing- DPW & Fire Stations

<p>SOP Description:</p> <ul style="list-style-type: none">• Wash waste water must not be allowed to enter storm drains.• Wash vehicles and equipment inside the building if washing must occur on-site.• If washing must be done outside, it will be done over a gravel or grassed area with cold water and no soap. Alternatively, wash outside on a covered, paved surface that collects wash waste water and directs it to the sanitary sewer.• Design wash areas to properly collect and dispose of wash waste water when engine cleaning is conducted and when chemical additives, solvents, or degreasers are used.• Use biodegradable, phosphate-free detergents for washing vehicles as appropriate.• Discharge all wash waste water to a sanitary sewer, holding tank, or a process treatment system after consulting with the local sewer authority to find out if pretreatment is required.•
<p>Measurable Goals:</p> <p>Vehicles not washed inside or washed at a commercial facility</p>
<p>Timeline/Implementation Schedule:</p> <p>Employee training</p>
<p>Notes:</p>

Standard Operating Procedure: Outdoor Materials Storage - DPW

SOP Description:

- Consider building a covered area with a paved floor for storing materials to prevent contact with storm water runoff. This practice can be used for significant materials that could contaminate storm water runoff.
- If small quantities of materials are stored outdoors, consider placing a temporary plastic film or sheeting over the material to protect it from storm water runoff.
- New storage areas will be paved and include a drainage system to collect the storm water runoff. The paved area will be sloped to avoid pooling and curbed to contain any contaminated runoff. Avoid the use of catch basins in the interior of the paved area since catch basins could fill with material and clog. The drain from the paved area can be connected to the sanitary sewer if allowed by the local public works department. If this is not possible, then the runoff may need treatment to remove pollutants.
- For unpaved storage areas, determine whether or not rainfall infiltrates into the soil through visual observations during rainfall events. If storm water passes into the soil, no further work is needed provided there is no concern for groundwater contamination. If runoff is observed, construct a berm around the storage area to collect and divert the excess runoff either to the sanitary sewer or for treatment.
- On paved surfaces, sweep any spilled or escaped materials back into the storage area. Do not hose down an area with water.
- Maintain an Emergency Spill Response and Cleanup Plan

Measurable Goals:

Inspection and cleanup frequency

Timeline/Implementation Schedule:

Employee training
Spill prevention and response

Notes:

Standard Operating Procedure: Hazardous Materials Storage - DPW

SOP Description: (EPA)

- Ensure sufficient aisle space to provide access for inspections and to improve the ease of material transport.
- Store materials away from high-traffic areas to reduce the likelihood of accidents that might cause spills or damage to drums, bags or containers.
- Stack containers in accordance with the manufacturers' directions to avoid damaging the container or the product itself.
- Store containers on pallets or equivalent structures. This facilitates inspection for leaks and prevents the containers from coming into contact with wet floors, which can cause corrosion. This consideration also reduces the incidence of damage by pests (insects, rodents, etc.).
- Liquid materials will be stored with secondary containment to contain any leaks or spills.
- Delegate the responsibility for management of hazardous materials to personnel trained and experienced in hazardous substance management.
- Have a spill response and prevention plan including readily available and well-marked spill kits.

Measurable Goals:

Spill kit availability

Secondary containment structures

Timeline/Implementation Schedule:

Employee training

Spill prevention and response

Inspection schedule

Notes:

Based on EPA Hazardous Materials Storage website:

<http://water.epa.gov/polwaste/npdes/swSOP/Hazardous-Materials-Storage.cfm>

Standard Operating Procedure: Vehicle Fueling Station - DPW

SOP Description:

- Inspect tank foundations, connections, coatings, tank walls, and piping systems. Look for corrosion, leaks, cracks, scratches, and other physical damage that may weaken the tank or container system.
- Visually inspect new tank or container installations for loose fittings, poor welds and improper or poorly fitted gaskets.
- Check for leaks or spills when transferring fuel from tanker truck into storage system and when fueling vehicles.
- Above-ground tanks will be tested periodically for integrity by a qualified professional.
- Dry cleanup methods will be employed when cleaning up fuel-dispensing areas. Spill kits will be readily available and clearly labeled.
- Fuel dispensing areas will be covered, and the cover's minimum dimensions must be equal to or greater than the area within the grade break or the fuel dispensing area.
- Barriers will be in place to prevent vehicles from damaging pumps and other fuel station structures.
- Fueling stations will be located away from storm drains.

Measurable Goals:

Spill kit availability
Inspection frequency

Timeline/Implementation Schedule:

Employee training
Spill prevention and response
Inspection schedule

Notes:

Standard Operating Procedure: Fuel Storage- DPW

SOP Description¹:

- Follow standard tank filling practices when filling tanks to prevent spills and overfills
- Each storage tank will have impermeable, adequately sized secondary containment to contain spills (also allows leaks to be detected more easily)
- Use a manually controlled sump pump to collect main water that may collect in the secondary containment area
- Regular monitor storage areas to checks for leaks and ensure proper working condition of the system. Ensure that corrosion control measures are in place.
- Properly decommission storage tanks that are no longer in use
- Locate storage tanks at safe distances from surface water, storm or sanitary sewers and drinking water wells
- Conduct periodic cleanup of the containment area to remove any dirt and other contaminant buildup

Measurable Goals:

Secondary containment for all fuel storage tanks

Availability of spill kits

Frequency of inspections

Timeline/Implementation Schedule:

Employee training

Inspection schedule

Cleaning schedule

Notes:

¹ Under certain storage capacities, Part 112 rules apply. This SOP is not intended to take the place of or meet the standards of Part 112 rules.

Reference: EPA. 2001. Source Water Protections Practices Bulletin: Managing Above Ground Storage Tanks to Prevent Contamination of Drinking Water.

Standard Operating Procedure: Salt¹ and Brine Storage - DPW

SOP Description²: (DEQ & Winter Manual)

- Salt will be stored inside and in dry conditions or covered with waterproof tarps.
- Salt will be stored on impervious surfaces to reduce seepage into groundwater.
- Salt piles will be located at least 50 feet from any open water body or wetland and located outside the 100-year floodplain.
- All shipping and loading/unloading activities will occur inside the storage building.
- Minimize and cleanup any track out from storage buildings or from outdoor loading/unloading areas.
- Liquid brine must be stored in double-walled tanks or a single-walled tank with secondary containment. Secondary containment must be large enough to contain the entire volume of the tank if spilled.

Measurable Goals:

Spill kit availability
Frequency of trackout cleanup
Secondary containment

Timeline/Implementation Schedule:

Employee training
Spill prevention and response

Notes:

¹ Includes salt, salt-sand mixtures and other alternative deicers in solid form

² Some of these recommended practices, as well as additional requirements, may need to be met in order to comply with Part 5 rules if the salt or brine storage facility meets certain criteria.

Standard Operating Procedure: Parking Lot and Sidewalk Salt¹ Application

DPW, Fire Stations, City Hall

SOP Description:

- Calibrate spreaders to ensure proper application rates.
- Consider environmental impacts and practical melting temperature when determining which material and how much to apply.
- Consider alternative products to spread on sidewalks and parking lots that have less environmental impact.
- Only apply the amount of deicer needed to get the job done.
- As much as possible, remove snow prior to applying deicers. The less snow, the less deicer needed.
- Remember that sand provides traction and does not melt ice. If sand must be used, then institute regular sweeping to prevent sand from entering storm drains.
- Consider anti-icing products in key areas that receive high-foot traffic to avoid slip and fall injuries.

Measurable Goals:

Reduction of salt use

Timeline/Implementation Schedule:

Employee training

Notes:

¹ Salt includes sand-salt mixtures and other alternative deicers.

Standard Operating Procedure: Salt Vehicle Washing - DPW

SOP Description:

- Wash areas must be located on an impervious pad that is slope or curbed to contain wash water for proper disposal.
- Wash waste water can be disposed of in one of 2 ways:
 - Discharge into the sanitary system
 - Discharge into a holding tank for proper disposal at an approved facility

Measurable Goals:

100% capture and proper disposal of salt vehicle wash water

Timeline/Implementation Schedule:

Employee training

Notes: review MDEQ *Salt and Brine Storage Guidelines*

Standard Operating Procedure:

Parking Lot Sweeping

DPW, Fire Stations, City Hall

SOP Description:

- A regular sweeping schedule will be maintained.
- Parking lot sweeping is only to be performed during dry weather.
- Wet cleaning or flushing of the lot is to be avoided. If wet cleaning is necessary, collect debris and direct wash waste water to the sanitary sewer.
- Sweepers are to be operated at manufacturer directed optimal speed level to increase effectiveness.
- Vacuum or regenerative air sweepers will be used in high sediment and trash areas.
- Accurate logs of the sweeping frequency and the amount of waste collected are to be kept.
- Dispose of sweeping debris and dirt at a landfill.
- Do not store swept material near a storm drain inlet.
- Debris storage is to be kept to a minimum during the wet season. Piles will be contained by a berm or covered.

Measurable Goals:

Frequency of sweeping

Acres of parking lots cleaned and volume of material collected

Timeline/Implementation Schedule:

Employee training

Sweeping schedule

Notes:

Standard Operating Procedure: Snow Storage & Removal

DPW, Fire Stations, City Hall

SOP Description: (DEQ)

- Avoid snow storage and disposal on erodible sites or where there are steep slopes.
- Avoid disposal sites with high risk for human exposure (parks, playgrounds, etc.).
- Choose sites with adequate soil depth between the surface and groundwater to act as a filter. Fine-grained loamy soils with high organic matter will filter and retain contaminants better than sandy soils.
- Avoid disposal in a landfill.
- Do not dispose of in wetland or floodplains.
- The best disposal sites are those that drain to a detention pond or infiltration area that capture pollutants and keep them from entering surface water.

Measurable Goals:

Amount (volume or percent of total managed) of snow stored in detention/infiltration areas

Timeline/Implementation Schedule:

Employee training
Isolation of snow piles from sensitive areas

Notes:

Based on MDEQ Snow Disposal Guidance: https://www.michigan.gov/documents/deq/wrd-waterwords-20140208_446950_7.pdf

Standard Operating Procedure: Dumpster Storage and Maintenance – DPW & Parks

SOP Description:

- All outdoor dumpsters will be stored on an impervious surface.
- All outdoor dumpsters will have a cover that is closed when they are not being loaded or unloaded.
- All outdoor dumpsters will be inspected during the six-month comprehensive site inspection to check for structural damage. Leaky dumpsters will be repaired or replaced.
- Dumpster areas will be inspected regularly as part of a facility litter control program to ensure that debris is disposed of properly and not allowed to enter surface water.
- Minimize the disposal of liquids in dumpsters.

Measurable Goals:

Frequency of inspections

Timeline/Implementation Schedule:

Employee training

Inspection and maintenance schedules

Notes:

Standard Operating Procedure: Lawn Care and Landscape Maintenance

DPW, Fire Stations, City Hall, Parks, Cemeteries

SOP Description:

- Use phosphorus-free fertilizer in all cases except when starting a new lawn from seed, patching/repairing a lawn with seed or when a soil test has shown there is a need
- The area of lawn will be measured prior to applying fertilizer to ensure that the proper amount is applied
- Maintain at least a 15-foot buffer of no fertilizer application when applying adjacent to surface water or storm water controls
- Grass will be cut no shorter than three inches to encourage root growth
- All grass clippings and fertilizer will be swept or blown off impervious surfaces back onto lawns to prevent runoff into storm drains
- When irrigating, follow a schedule to maximize efficiency and prevent excess water from running off
- When selecting landscape plants, choose species that are appropriate for the site conditions. Use of native species is encouraged to minimize the need for fertilizing and irrigation.
- Any pesticide application will be completed by an employee or contractor that is certified by the State of Michigan as a pesticide applicator in the applicable category

Measurable Goals:

Use only phosphorus free fertilizer
Use native species when planting

Timeline/Implementation Schedule:

Employee training
See mowing and irrigation schedules

Notes:

Standard Operating Procedure: Street Sweeping & Cleaning

Category of Municipal Operation: Roads, Streets, and Highways Operation and Maintenance
SOP Description: <ul style="list-style-type: none">• Maintain a consistent sweeping schedule.• Street cleaning is only to be performed during dry weather.• Wet cleaning or flushing of the street is to be avoided.• Sweeping frequency will be increased based on factors such as traffic volume, land use field observations of sediment and trash accumulation, proximity to water course.• Sweepers are to be operated at manufacturer requested optimal speed level to increase effectiveness.• Vacuum or regenerative air sweepers will be used in the high sediment and trash areas.• Accurate logs of the number of curb-miles swept and the amount of waste collected are to be kept.• Dispose of sweeping debris and dirt at a landfill.• Do not store swept material along the side of the street or near a storm drain inlet.• Debris storage is to be kept to a minimum during the wet season. Piles will be contained by a berm or covered.
Measurable Goals: <p>Report approximate quantity (tons or cubic yards) of debris cleaned from streets, sidewalks and parking lots.</p> <p>Staff retraining or continuing education activities related to policies and procedures.</p>
Timeline/Implementation Schedule: <p>Employee training</p> <p>See street sweeping schedule</p>
Notes:

Standard Operating Procedure: Roadway Patching, Resurfacing and Surface Sealing

Category of Municipal Operation: Roads, Streets, and Highways Operation and Maintenance

SOP Description:

- Patching, resurfacing and sealing are to be scheduled for dry weather.
- Material stockpiles are to be kept away from streets, gutter areas, storm drain inlets or waterways. Piles are to be bermed or covered during wet weather to prevent runoff.
- Preheating, transfer or loading of hot bituminous material is to be done away from drainage systems or waterways.
- Where applicable, nearby storm drains are to be covered before applying seal coat, slurry seal etc.
- Covers are to be left in place until job is complete and until all water from emulsified oil sealants has drained or evaporated. Clean any debris from storm drain inlets when the job is complete.
- Excess material is to be prevented from entering streets or storm inlets.
- There shall be a designated area for cleanup and proper disposal of excess material.
- To avoid runoff, only as much water as is necessary will be used for dust control.

Measurable Goals:

Use of storm drain covers

Timeline/Implementation Schedule:

Employee training

Notes:

Standard Operating Procedure: Painting and Paint Removal

Category of Municipal Operation: Roads, Streets, and Highways Operation and Maintenance

SOP Description:

- Paint and materials are to be transported to and from job sites in containers with secure lids and tied down to the vehicle.
- Do not transfer or load paint near storm drain inlets or waterways.
- Spray equipment is to be tested and inspected prior to starting to paint. Tighten all hoses and connections and do not overfill paint container.
- Nearby storm drain inlets are to be plugged prior to starting painting in areas where there is a significant risk of a spill reaching the drain. Remove plugs when the job is complete.
- Storm drain inlets are to be covered prior to sand blasting.
- If a bridge crosses a waterway, work will be performed on a maintenance traveler, platform or over suspended netting or tarps to capture paint, rust, paint removing agents, or other materials to prevent discharge of materials to surface waters. If sanding, use a sander with a vacuum filter bag.
- Capture all cleanup water and dispose of properly.
- Properly disposed of unused paint at a County Resource Recovery Center.

Measurable Goals:

Test and inspect equipment
Use of storm drain covers

Timeline/Implementation Schedule:

Employee training

Notes:

Standard Operating Procedure: Bridge Repair and Maintenance

Category of Municipal Operation: Roads, Streets, and Highways Operation and Maintenance

SOP Description:

- Prevent concrete, steel, wood, metal parts, tools and other work materials from entering storm drains or waterbodies.
- Thoroughly clean up the job site when repair work is completed.
- If surface cleaning, painting and paint removal, and graffiti removal are performed, implement the appropriate procedures as outlined in those SOPs.

Measurable Goals:

Number of bridge repair/replacement projects with incorporated pollution prevention or streambank erosion control components

Erosion control and drainage measures implemented for roads.

Timeline/Implementation Schedule:

Employee training

Notes:

Standard Operating Procedure: Unpaved Roads and Trails

Category of Municipal Operation: Roads, Streets, and Highways Operation and Maintenance

SOP Description:

- Stabilize exposed soil areas to prevent soil from eroding during rain events. This is particularly important on steep slopes.
- Roadside areas with exposed soils will be vegetated with a mulch or binder that will hold the soils in place while the vegetation is establishing. Native vegetation will be used if possible.
- If vegetation cannot be established immediately, apply temporary erosion control mats/blankets, straw or gravel as appropriate.
- In roadside areas where sediment is already eroded and mobilized temporary controls will be installed. These may include: silt fences, fabric dikes, hay bales staked in place, or any other appropriate measure.

Measurable Goals:

Erosion control measures in place

Timeline/Implementation Schedule:

Notes:

Standard Operating Procedure: Graffiti Removal

Category of Municipal Operation: Plaza, Sidewalk and Parking Lot Maintenance and Cleaning

- SOP Description:**
- Graffiti removal activities are to be scheduled during dry weather.
 - When graffiti is removed by painting over, implement the procedures under Painting and Paint Removal.
 - Nearby storm inlets are to be protected prior to removing graffiti. Runoff from sand blasting and high pressure washing will be directed into a landscaped or dirt area. If such an area is not available filter runoff through an appropriate filtering device (e.g. filter fabric) to keep sand, particles and debris out of storm sewers.
 - When power washing using cleaning compounds, nearby storm inlets are to be plugged and water is to be vacuumed/pumped to the sanitary sewer.
 - Waterless and nontoxic chemical cleaning methods (e.g. gels or spray compounds) will be used when possible.

Measurable Goals:
Use of storm drain covers

Timeline/Implementation Schedule:
Employee training

Notes:

Standard Operating Procedure: Litter Control

Category of Municipal Operations: Plaza, Sidewalk and Parking Lot Maintenance and Cleaning
SOP Description: <ul style="list-style-type: none">• Source reduction<ul style="list-style-type: none">○ Place outdoor litter containers in visible areas and empty frequently to prevent overflow. Containers will have lids.○ Promote recycling programs○ Develop an educational message to garner employee support• Litter removal<ul style="list-style-type: none">○ Includes regular street and parking lot sweeping, catch basin cleaning and general property cleanup○ Leaf collection program
Measurable Goals: Frequency of sweeping and cleaning Tons or cubic yards of litter collected
Timeline/Implementation Schedule: Employee training Regular schedules for general property cleanup, sweeping and cleaning
Notes:

Standard Operating Procedure: Erosion Control

Category of Municipal Operations: Landscape Maintenance

SOP Description:

- Preserve and protect existing vegetation on site
- Implement vegetative and soil protection practices in areas where soil is exposed
 - Establish permanent vegetative cover as soon as possible by seeding, sodding and mulching or sodding. Establish temporary vegetative cover until permanent cover can be established.
 - Secure mulch, erosion control blankets or other physical measures to protect exposed soil until permanent measures can be established.
- Use structural storm water controls to reduce the amount or velocity of water flowing across erosive surfaces or divert water away from these areas.
- Inspect and maintain all erosion control measures to ensure proper function

Measurable Goals:

Eliminate soil erosion from all properties

Timeline/Implementation Schedule:

Employee training
Annual inspection and maintenance as needed

Notes:

Standard Operating Procedure: Storm Water Conveyance Structures

Category of Municipal Operations: Drainage System Operation and Maintenance

SOP Description:

- Check surface over the pipe system for settlement or lost cover
- Inspect structural condition of outlet and inlets including headwalls and aprons for cracks, separation or collapsed ends
- Look for scouring or undermining, including evidence of animal burrows
- Look for scour at inlets and outlets due to heavy volumes and flows and assess need for erosion control measures
- Check for obstructions due to excessive vegetation, particularly trees or other woody vegetation
- Check pipe structure for collapse or deformation
- Check for corrosion on metal pipe, particularly at the inlet
- Look for deposition of sediment and other debris and remove as necessary

Measurable Goals:

Frequency of inspections

Response time for repairs and maintenance

Timeline/Implementation Schedule:

Employee training

Inspection schedule

Maintenance schedule

Notes:

Standard Operating Procedure: Controlling Illegal Dumping

Category of Municipal Operations: Drainage System Operation and Maintenance

SOP Description:

- Develop and implement public awareness program to prevent illegal dumping and encourage reporting
- Train staff to recognize and report incidents
- Establish system to track incidents that will identify:
 - Dumping hot spots
 - Types and quantities of waste
 - Patterns of occurrence (time of day, season, etc.)
 - Method of dumping
 - Responsible parties

Measurable Goals:

Decrease number of illegal dumping reports

Timeline/Implementation Schedule:

Employee training
Public education plan
Tracking system

Notes:

Standard Operating Procedure: Inlet and Outlet Structure Maintenance

Category of Municipal Operations: Drainage System Operation and Maintenance

SOP Description:

- Inspect riser/standpipe cover for trash and debris and remove as needed
- Inspect inlet, outlet pipes and emergency spillways for trash or debris that may be blocking
- Remove accumulated sediment at inlets, outlets, forebays, and emergency spillways
- Inspect pipes for structural integrity
- Inspect rip rap and replace as necessary
- Check for erosion around inlets, outlets and other features and install stabilization measures as necessary

Measurable Goals:

Frequency of inspections
Response to maintenance needs

Timeline/Implementation Schedule:

Employee training
Inspection schedule
Maintenance schedule

Notes: use MDEQ Guidance document

Standard Operating Procedure: Plowing

Category of Municipal Operations: Cold Weather Operations

SOP Description:

- Plow prior to an application of chemical in order to minimize product dilution.
- Coordinate plowing activities to eliminate windrows at intersections and prevent removal of another operator's deicing material.
- Remove snow from roads as quickly as possible to reduce compaction.
- Avoid pushing snow over the bridge rails and onto roads or water beneath.
- Pay attention to wind conditions. If willer blading isn't critical, then delay until wind speeds are lower.
- Reduced speed minimizes the risk of a snow cloud. Lift the blade and wing if a snow cloud forms; do not slow down or brake.

Measurable Goals:

Winter maintenance plan
Route preparation and planning

Timeline/Implementation Schedule:

Employee training

Notes:

See: *Michigan Winter Maintenance Manual: Promoting Safe Roads and Clean Water*. 2013.

Standard Operating Procedure: Sand Application

Category of Municipal Operations: Cold Weather Operations

SOP Description:

- Sweep up excess sand after each event.
- Apply sand in extreme cold weather, when salt is ineffective.
- Avoid salt/sand mixes because they reduce each other's effectiveness. Determine if you need melting or temporary traction and choose the proper tool.
- Employ sand only for short-term traction needs. It has no melting capability.
- In limited situations such as a freezing rain event, a 25 to 50% sand/salt mix can be effective in increasing friction.¹

Measurable Goals:

Reduction of sand use
Appropriate timing of sand use

Timeline/Implementation Schedule:

Employee training

Specific Components and Notes:

See *Michigan Winter Maintenance Manual* for more information

Standard Operating Procedure: Road Salt Application

Category of Municipal Operations: Cold Weather Operations

SOP Description:

- Calibrate salt spreaders to ensure proper application.
- Only apply the amount of salt needed to get the job done.
- Follow the proper application guidelines.
- Consider temperature when determining volume of salt to apply.
- Cleanup ‘trackout’ after a storm event around the storage area.
- Contain wash water from trucks used for salting and sanding in a holding tank for disposal or discharge into sanitary sewers.
- Explore alternative compounds to spread on the roads that have the same effect but are better for surrounding area.
- Store salt properly under cover to make sure salt is not leaving the storage area and draining to a storm drain or water body.
- Place salt piles in areas not subject to flooding.
- Use diversion berms to minimize water runoff from storage areas.

Measurable Goals:

- Salt storage structures have been inspected and necessary repairs have been scheduled or completed.
- All deicing materials have been stored under cover.
- Application components have been tested, calibrated, and maintained at regular intervals.

Timeline/Implementation Schedule:

Employee training

Notes:

See: *Michigan Winter Maintenance Manual: Promoting Safe Roads and Clean Water. 2013.*