

Class I Disposal Facility Inspector Training Manual 2022



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Purpose

The purpose of this training manual is to provide Division of Solid Waste Management (DSWM) inspectors best practical information for noting areas of concern, violations (V1), and significant violations (V2) for Tennessee Class I landfills. In this document, violations are cross-referenced to the DSWM rule citations from *0400-11-01-.04 SPECIFIC REQUIREMENTS FOR CLASS I, II, III, AND IV DISPOSAL FACILITIES*¹.

This document is organized by violations listed in order as found on the inspection form. Each violation is addressed first by giving the rule citation requirements as well as “green box” training information following.

General inspector training information is provided in green text boxes for each violation number listed on the disposal inspection document. This information is for training and reference purposes for DSWM staff. The “green box” training information in this document has been developed with the recognition that there are many factors to consider for any issue of concern or violation and can vary greatly from one landfill facility to another. As such, the “green box” training information in this document is meant as relative rules of thumb developed to help improve consistency for the DSWM inspection program state-wide. This information does not supersede the regulations or individual permits.

¹ Authority: T.C.A. § 68-211-101 et seq., 68-211-701 et seq., 68-211-801 et seq., 11-13-111, Chapter 169 of the Private Acts of 1990, and 4-5-201 et seq. Administrative History; Original rule filed June 19, 2012; effective September 17, 2012. Amendments filed December 18, 2012; effective March 18, 2013

Explanations

Area of Concern:

An area of concern is an area that needs to be watched for problems. These areas have the potential to become violations if they should elevate to the V1 violation criteria level. Areas of concern should typically be noted for issues that are not direct violations of the rule citations, but show the potential of becoming direct violations if some type of action isn't undertaken. However, notation of an area of concern should not be used as a pass or allowance for time to fix a first observed V1 violation.

Violations (V1) and Significant Violations (V2):

This manual provides training information for inspectors for distinguishing between areas of concern, violations (V1), and significant violations (V2). However, this information is primarily focused towards differentiating between areas of concern and violations (V1). Generally, for all violations listed in this manual, a significant violation (V2) results from non-corrective action after a V1 violation is given. However, there are circumstances where significant violations (V2) can be cited upon initial inspection. Training information is given for those circumstances in this document as well.

A V1 violation may only be issued if there is no present or imminent risk to public health or the environment. If a V1 is cited during an inspection, then a follow-up inspection will be needed, which requires a follow up inspection date (noted on the inspection form). The follow up inspection date is determined by the type and condition of the violation. However, if the follow up inspection date is 30 days the V1 issue should be addressed during the next monthly inspection. If the V1 violation has not been corrected by the follow-up inspection, a V2 violation may be cited. An extension may be issued by the inspector if suitable progress has been made or other circumstances warrant. The extension an inspector may give is based on the time of the initial violation date and follow up inspection. The total time of both may not exceed 45 days. Please remember, **corrective action for a violation should begin "immediately"**. The establishment of a **follow up inspection date** does not authorize a facility to remain out of compliance until that date. It is the responsibility of a facility to always be in compliance with the permit and applicable regulations. A follow up inspection \ planning to conduct a follow-up inspection. In situations, such as additional citizen's complaints, DSWM staff may return to the facility prior to the follow up inspection date to address that issue.

The DSWM Environmental Field Office Manager can allow more time to address a V1 or V2 violation if circumstances warrant such an extension (e.g., the requirement of dry weather for repair). The facility must request an extension and provide a compliance schedule in writing to allow more time to correct the violations. Email correspondence is also acceptable for this procedure provided all documentation is properly recorded.

General violations:

A comment or written observation can be noted on the inspection form. These comments or written observations are typically areas of concern that may indicate a *potential V1 violation*. However, V1 violations are typically considered problems that *need to be corrected* in an appropriate time frame. V2 violations can typically be considered problems that *should have already been corrected or problems that present an imminent risk to public health or the environment*.

Pre-Inspection:

Staff members shall prepare a Permit Specific Summary Sheet for each landfill that includes the following:

Fact Sheet Items

- A. Any FACILITY-SPECIFIC PERMIT CONDITIONS that address the daily operations of the landfill;
- B. The following from the Operational Manual:
 - 1. Access Control structures and procedures;
 - 2. Summary of Sequence of Operations;
 - 3. Any details of the Covering of Waste procedures (Use of tarp allowed);
 - 4. List of Equipment;
 - 5. Any specific Litter Control Procedures;
 - 6. Leachate Holding Structures;
 - 7. Any specific Dust Control Procedures;
 - 8. Any specific Fire Safety Equipment and Procedures;
 - 9. Level in each leachate sump that corresponds to one foot of head over the liner; and,
 - 10. Any routine maintenance schedules for the leachate collection system.

Pre-Inspection/Inspection items

Review Items

1. Check previous inspection report to determine if there are reoccurring problems or violation.
2. Check to see if there have been complaints concerning the facility.
3. Check for information on any current or new special wastes.
4. Check records for random inspections, volume of waste received, asbestos received, gas monitoring records, special wastes, groundwater monitoring record and certifications for scales, operators and personnel training.

Permit Specific Summary Sheets Parts A and B shall be updated when the permit is modified.

8010

Inadequate vector control

Citation Reference: 0400-11-01-.04(2)(a)1

General Facility Standards – Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the propagation, harborage, or attraction of birds and flies, rodents, or other disease vectors.

Violation (8010)

Control of disease vectors is one of the main goals of the proper operation of a landfill. A relatively small number of flies or a rat that came in with a load should not normally be considered a violation. Neither should a few birds that occasionally show up at the working face (or seagulls during seagull “season”). Potential concerns for vector control can be included in the comments. *However, when the actual number of vectors is large, the evidence (rat burrows, maggots) is significant, or an indication that breeding or increasing numbers is observable, this violation (V1) should be cited. Domestic animals may be vectors. It is acceptable for domestic animals to be onsite if they are fed, shelter and water is provided and they are being given proper care. If these animals are abandoned, creating a health or safety issue or are having to compete for food (ie. In the waste) then a violation may be issues.*

8020

Access not limited to operating hours

Citation Reference: 0400-11-01-.04(2)(a)4

General Facility Standards – Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the exposure of the public to potential health and safety hazards through uncontrolled or unauthorized public access.

Violation (8020)

If the public had access to the landfill when it was not in operation, scavenging, burning, and indiscriminate dumping would be possible. Resources would then have to be diverted from normal operations to restore acceptable conditions. *For this reason, public access should be limited to clearly posted hours that are consistent with facility’s permit—if not, a V1 violation should be cited.* This violation concerns public access and not facility operation.

Inadequate artificial or natural barrier**Citation Reference:** 0400-11-01-.04(2)(b)1

General Facility Standards – Control of Access and Use - The facility must have an artificial or natural barrier which completely surrounds the active portion of the facility and must have a means to control entry, at all times, through the gate or other entrances to the active portion of the facility.

Violation (8030)

The required barrier is intended to prohibit vehicular traffic (or easy foot traffic) from entering the active portion of the landfill when the site is not in operation. "Natural barriers" are usually described on plans or addressed in permit. "Artificial barriers" includes gates, cables, fencing, or other artificial means of *controlling* access (and are also usually described on plans or addressed in permit). A violation can be cited if evidence of access (e.g., ATV or 4x4 tracks, etc.) to controlled portions of the landfill exists; there should be clear indications of non-controlled access before a violation is cited. *If a breach in barrier by more natural means (e.g., tree fallen on fence, etc.) is observed, an AOC may be issued. If nothing is corrected upon follow-up or next inspection, a violation should be cited.*

Inadequate information signs**Citation Reference:** 0400-11-01-.04(2)(b)2

General Facility Standards – Control of Access and Use - If open to the public, the facility must have clearly visible and legible signs at the points of public access which indicate the hours of operation, the types of waste materials that either will or will not be accepted, emergency telephone numbers, schedule of charges (if applicable), and any other necessary information.

Violation (8040)

Signage at Class I landfills is usually described in the facility's permit. The regulatory requirement of this signage requires, at the very least, visible and legible signs at points of public access that describes hours of operation, types of waste materials that will or won't be accepted, emergency numbers, schedule of charges (if applicable), and any other necessary information. Questions regarding this violation should typically default to what is described in their permit. Also, as a reference, please refer to TCA 68-211-703(h) for more information on signage. However, it is possible that extreme weather events may occur (e.g. flooding or severe snow/ice storms) and consideration of such events should be given. The facility operator has the ability to adjust and modify daily operating hours in inclement weather conditions to ensure customer and employee safety at the facility.

8050

Unsatisfactory access road(s)/parking area(s)

Citation Reference: 0400-11-01-.04(2)(b)3

General Facility Standards – Control of Access and Use - If the facility is open to the public, or if it is otherwise necessary for proper operation, roads within the facility, easements, and parking areas shall be designed, constructed, and maintained so as to be accessible in all weather conditions. Traffic control signs shall be provided as necessary to promote an orderly traffic pattern to and from the solid waste discharge area to maintain efficient operating conditions.

Violation (8050)

If operating portions of the landfill are not accessible and/or are potentially dangerous to access due to poor road conditions, a V1 violation should be cited. An uncorrected V1 violation can trigger a significant V2 violation upon follow-up. This regulatory language states that roads must be maintained so as to be accessible in all weather conditions. Weather can potentially affect normal operations and impede regular operations. However, roads should be maintained to insure operations are not drastically slower or stopped.

8060

Certified personnel not present during operating hours

Citation Reference: 0400-11-01-.04(2)(b)5

General Facility Standards – Control of Access and Use - Class I landfill facilities shall have a certified operator or attendant on site during the hours of operation that is trained and certified as provided at Rule 400-01-07-.12.

Violation (8060)

Certified operators of Class I landfills must have successfully completed a certification training course recognized by the DSWM. Typically, landfill operators take the division Landfill Operators Certification Training Program. However, other certifications are recognized by the DSWM. This rule requires a certified operator and/or attendant to be present and on site during the hours of operation **when waste is being received or processed**. Proper documentation must be available at the time of inspection for the certified operator(s) at the facility. If not provided, a V1 can be cited.

8070

Unapproved salvaging of waste

Citation Reference: 0400-11-01-.04(2)(b)6

General Facility Standards – Control of Access and Use - There must be no scavenging at the facility. Any salvaging or recycling operations must be conducted at safe, designated areas (not the working face) and times, and in a sanitary manner.

Violation (8070)

An important distinction for this violation is the difference between approved salvaging/recycling operations (conducted by landfill personnel usually in accordance with an approved plan) for the separation of reusable materials and scavenging from the public. Scavenging is prohibited; the landfill should be actively prohibiting this practice.

8080

Evidence of open burning

Citation Reference: 0400-11-01-.04(2)(c)1

Fire Safety - Except as may be specifically authorized by the Department:

- (i) The operator must not permit or engage in open burning of solid wastes at the facility. Any open burning that does occur must be immediately extinguished.

- (ii) The operator must not allow solid wastes which are burning or smoldering to be deposited into the active portion of the facility. Any such wastes that are received must be deposited at a location safely removed from the active portion and extinguished before being deposited into the active portion.

Violation (8080)

As the rule describes above, no burning of waste may occur at the working face of the landfill. If intentional burning is occurring at the working face, a V2 violation should be cited. Each permitted facility should have a fire control plan inside the operation manual to deal with accidental fires.

8090

Inadequate fire protection

Citation Reference: 0400-11-01-.04(2)(c)2

Fire Safety - The facility must have, on-site and continuously available, properly maintained fire suppression equipment in sufficient quantities to control accidental surface fires that may occur, or arrangements must be made with the local fire protection agency to provide immediate fire-fighting services when needed. Additional earth moving equipment shall be brought to the facility as necessary to help suppress an underground fire.

Violation (8090)

This violation is typically permit-specific. In the permit, the operations manual should describe whether they are covered by a fire department or if they use their own fire suppressant equipment. Whatever the case, fire suppression equipment should be consistent with the permit conditions. On equipment requiring fire suppression, if not present, a V1 may be issued. If a minimal a number of fire extinguishers are not operational a V1 may be issued. If a significant number are not operational then a V2 may be issued. By law fire extinguishers are to be checked at least annually. If a fire extinguisher has had the pin puller or not inspected within 12 months, it would not be considered operational. Facility personnel are required to do monthly inspections for lock pin, hose and gauge condition. The fire extinguisher needs to be rotated during this monthly inspection to insure the powder doesn't become hardened.

8110

Unsatisfactory litter control

Citation Reference: 0400-11-01-.04(2)(d)

Litter Control - A facility must be operated and maintained in a manner to minimize litter. Fencing, diking and/or other practices shall be provided as necessary to confine solid wastes subject to dispersal. All litter must be collected for disposal in a timely manner.

Violation (8110)

Class I landfills should be active in addressing litter. Permits should address litter control in detail. The primary concern for this violation is whether litter is being addressed in a “timely manner” as stated by the rule. Windy conditions and presence of an active litter pickup crew should be considered in determining if a violation will be cited. If litter has been observed for a long period of time (e.g., as evidenced in comparable pictures), then a V1 violation should be issued.

Intermediate cover should not have “**flagging**” – areas where waste is showing in various places in the cover dirt. “**Flagging**” should be limited to the immediate working face and in the initial cover area only. “**Flagging**” or excessive waste showing in intermediate cover requires a V1 violation.

Litter that is in trees that are onsite, not easily accessible and has not left the landfill property, will receive an AOC if proper litter control measures are in place and other litter issues are being dealt with in accordance with Regulations.

Violation Number: 8120

8120

Inadequate employee facilities

Citation Reference: 0400-11-01-.04(2)(e)

Personnel Services - At Class I disposal facilities, and at Class II, Class III and Class IV disposal facilities as may be specified in the permits, there must be provided:

1. A building or other shelter which is accessible to facility personnel and which has adequate screening, heating facilities, and lighting;
2. Safe drinking water; and
3. Sanitary hand-washing and toilet facilities.

Violation (8120)

These conditions should be covered in the permit and should be described as in the rule above. Bottle water and portable toilets are acceptable for satisfying this requirement. If those conditions are not met, a V1 violation should be cited. If not corrected by a follow-up date or next inspection, a significant V2 violation can be cited.

8130

No communication devices

Citation Reference: 0400-11-01-.04(2)(f)

Communications - The facility must have operating and effective communications devices (e.g., telephone, 2-way radio) capable of summoning emergency assistance on-site and available to facility personnel at all times the facility is in operation.

Violation (8130)

Reasonable and effective communication (facility provided) equipment (e.g., radios, cellular phones, etc.) should be available to landfill personnel to summon emergency assistance. If those conditions are not met, a V1 violation should be cited. If not corrected by a follow-up date or next inspection, a significant V2 violation can be cited.

8140

Inadequate operating equipment

Citation Reference: 0400-11-01-.04(2)(g)

Operating Equipment - At Class I disposal facilities, and at Class II, Class III and Class IV disposal facilities unless the Commissioner deems some other arrangement as adequate for proper facility operation, there must be maintained on-site operating equipment capable of spreading and properly compacting the volume of solid wastes received, and capable of handling the earthwork required. Back-up equipment must be available within 24 hours of primary equipment breakdown.

Violation (8140)

If equipment failure or unavailability of necessary equipment impedes the normal operation and/or daily cover requirements then a V1 should be given. This violation will typically accompany another violation(s). If equipment failure/unavailability is causing another violation then this violation should also be cited.

8150

Unavailability of backup equipment

Citation Reference: 0400-11-01-.04(2)(g)

Operating Equipment - At Class I disposal facilities, and at Class II, Class III and Class IV disposal facilities unless the Commissioner deems some other arrangement as adequate for proper facility operation, there must be maintained on-site operating equipment capable of spreading and properly compacting the volume of solid wastes received, and capable of handling the earthwork required. Back-up equipment must be available within 24 hours of primary equipment breakdown.

Violation (8150)

As specified in the facility's permit, back-up equipment must be available within 24 hours of primary equipment breakdown. The permit conditions could allow a contract service or secondary off-site equipment to be designated. It would be cited as a V1 violation if it is determined other violations can be traced back to lack of backup equipment.

8160

Unavailability of cover material

Citation Reference: 0400-11-01-.04(2)(h)

Availability of Cover Material - Cover material sufficient to meet the initial and intermediate cover requirements of this rule must be available at the facility. If such material must be hauled in from off-site, at least a 30-day supply shall be maintained on-site at all times.

Violation (8160)

Cover should be available on-site to meet initial and intermediate requirements. The amount available for use at the site (soil borrow/storage areas) is usually addressed in the permit. If such material must be hauled in from off-site, at least a 30-day supply shall be maintained on-site at all times. Alternative daily cover (ADC) does count in the 30-day supply requirement.

8170

Inadequate maintenance of run-on/run-off system(s)

Citation Reference: 0400-11-01-.04(2)(i)1-5

Run-on, Run-off, and Erosion Control

1. The operator must design, construct, operate, and maintain a run-on control system capable of preventing flow onto the active portion of the facility for all flow up to and including peak discharge from a 24-hour, 25-year storm.
2. The operator must design, construct, operate, and maintain a run-off management system to collect and control at least the peak flow volume resulting from a 24-hour, 25-year storm.
3. Holding facilities (e.g., sediment basins) associated with run-on and run-off control systems must be designed to detain at least the water volume resulting from a 24-hour, 25-year storm and to divert through emergency spillways at least the peak flow resulting from a 24-hour, 100-year storm.
4. Collection and holding facilities associated with run-on and run-off control systems must be emptied or otherwise managed expeditiously after storms to maintain design capacity of the system.
5. Run-on and run-off must be managed separately from leachate unless otherwise approved by the Commissioner.

Citation Reference: 0400-11-01-.04(8)(c)4(i)

Closure and Post-Closure Standards - Closure Requirements

The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that minimizes precipitation run-on from adjacent areas onto the disposal facility or disposal facility parcel.

The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that provides a surface drainage system which is consistent with the surrounding area and in no way significantly adversely affects proper drainage from these adjacent lands.

Violation (8170)

The performance standards should be adhering to permit plans. This violation will usually be coupled with 8180 regarding erosion control. The primary question for consideration of this violation is: Is improper maintenance leading to a run-on or run-off problem? If so, it is a V1 violation. With collaboration of the DSWM permit-writer/engineer, a determination can be made on how to mitigate the cited run-on/run-off issue. This violation is for improper maintenance of a 24-hour, 25-year storm designed run-on/run-off system as designed in the permit. If water exits the site outside of a DSWM permit approved system a V1 should be cited. For issues involving temporary run-on/run-off controls that are not designed for a 24-hour, 25-year storm, an area of concern can be noted. Sometimes this should be obvious. If a check dam is blown out or a ditch filled with sediment then minimal consultation with the DSWM permit writer/engineer should be needed. Some post closure landfills were not required to have structures to contain a 24-hour/25-year rain event. If that is the case then drainage ditches need to be clear and graded for proper draining

Violation Number: **8180**

8180

Inadequate erosion control

Citation Reference: 0400-11-01-.04(2)(i)6

Run-on, Run-off, and Erosion Control - The operator must take other erosion control measures (e.g., temporary mulching or seeding, silt barriers) as necessary to control erosion of the site.

Citation Reference: 0400-11-01-.04(8)(c)4(ii)

Closure and Post-Closure Standards - Closure Requirements - The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that minimizes erosion of cover material (e.g., no steep slopes).

Citation Reference: 0400-11-01-.04(8)(c)5

Closure and Post-Closure Standards - Closure Requirements - In order to minimize soil erosion, as soon as practicable after final grading, the operator shall take steps as necessary to establish a protective vegetative cover of acceptable grasses over disturbed areas of the site. These steps shall include seeding, mulching, and any necessary fertilization at a minimum, and may include additional activities such as sodding of steeper slopes and drainage ways if such are necessary.

Violation (8180)

The facility must take permit-specified action for minimizing erosion. Erosion on side slopes should be evaluated. Minor erosion rills occurring on recently completed slopes where grass has yet to be established may not be a violation as long as Best Management Practices (BMPs) are being utilized to minimize and correct the erosion. When BMPs are not being consistently implemented and there are obvious signs of erosion (such as hard channelizing or uncovering of waste) or rills with a depth of 50% of the Regulatory required soil depth, **a V1 violation should be issued**. If a discharge causing an objectionable contrast to receiving waters or visible loss of sediment from a site is observed, the Division of Water Resources (DWR) should also be notified (as described in MOA policy information, [PN084](#))

Violation Number: 8190

8190

Inadequate dust control

Citation Reference: 0400-11-01-.04(2)(j)

Dust Control - The operator must take dust control measures as necessary to prevent dust from creating a nuisance or safety hazard to adjacent landowners or to persons engaged in supervising, operating, and using the site. The use of any dust suppressants (other than water) must be approved in writing beforehand by the Department.

Violation (8190)

Class I facilities should be taking measures to control dust in some way. The facility should be able to show effort in adhering to their specific permit conditions regarding dust control. In order to cite a violation, dust must be causing a safety hazard to the public, personnel on site, or adjacent property owners. If the source of the dust is from a special waste, the facility must adhere to the special handling conditions written in the special waste permit. If those special handling conditions are not met, this violation may be paired with Violation 8300 (mishandling of special waste) and a V2 may be warranted. If there is an excessive dust issue from the special waste then the approval may also need to be revisited.

Violation Number: 8210

8210

Unauthorized waste accepted

Citation Reference: 0400-11-01-.04(2)(k)1

Waste Restrictions - A facility may receive for disposal only those solid wastes it is allowed to manage under the terms of its permit.

Citation Reference: 0400-11-01-.04(2)(k)6

Waste Restrictions - Ash generated from municipal solid waste combustion (MSWC), may only be disposed of in a unit meeting all applicable standards for a Class II disposal facility, including a liner system and a leachate collection system. Such a unit may be located at a Class I facility.

Violation (8210)

Permitted Class I wastes are specified in individual permits. If a facility is accepting wastes that have not been approved in the facility permit (e.g., liquid wastes, whole tires, properly controlled medical waste, radioactive wastes), then a violation should be cited. Refer to permit and special waste approvals. If approved in individual permit, ash from MSWC can be accepted. Refer to individual permit for any questionable waste acceptance practices.

Violation Number: **8220**

8220

Unapproved special waste accepted

Citation Reference: 0400-11-01-.01(4)(b)

General Requirement - Except as may be specifically allowed in the permit, an operator may not accept for processing or disposal at his facility any special waste unless and until specifically approved to do so in writing by the Department. Facilities shall not process or dispose of special waste for which approval by the Department has expired. Special waste generators shall not send off-site to processing or disposal facilities special waste for which approval by the Department has expired, unless the facility has specific authority in the permit to accept such waste.

Citation Reference: 0400-11-01-.01(4)(c)5

Procedures - Landfills and/or waste processing facilities shall not accept a special waste at their facilities without the written, special waste approval from the Department unless the waste is specifically authorized in the facility permit.

Violation (8220)

Class I facilities are issued special waste approvals for individual waste streams that, by regulatory definition, are either difficult or dangerous to manage. Some examples of these wastes include: sludge, bulky wastes, pesticide wastes, medical wastes, industrial wastes, hazardous wastes which are not subject to hazardous waste regulations, liquid wastes, friable asbestos wastes, and combustion wastes (see Special Waste Policy [PN135](#)). Inspectors should be familiar with their site's approved special wastes. If a waste is in question at time of inspection, the inspector may confirm the approval of that special waste stream. The facility is required to have all approved special waste letters onsite. If such a waste is observed at the disposal area and not approved, a V2 violation is to be cited.

Violation Number: **8230**

8230

Tires improperly handled

Citation Reference: 0400-11-01-.04(2)(k)3(i)

Waste Restrictions - Discarded Tires - No landfill shall accept for disposal any whole tires.

Violation (8230)

Some discretion on the part of the inspector is required here; however, a violation is warranted only when whole tires are on the working face without an observable system of sorting and removing tires as described in the facility's individual permit. Previously, some leeway was given to removing observed whole tires from the working face due to safety concerns. If whole tires are observed, they should be removed if it can be done without creating undue safety issues.

Violation Number: **8240**

8240

Medical waste improperly handled

Citation Reference: 0400-11-01-.04(2)(k)4(i-iv)

Waste Restrictions - Medical waste. -

- i Sharps must be securely packaged in puncture-proof containers prior to landfilling.
- ii Cultures and stocks of infectious agents and associated biologicals must not be landfilled unless and until they have been treated (e.g., autoclaved, incinerated) to render them non-infectious.

iii Human blood, blood products, and other body fluids may not be landfilled. This restriction applies to bulk liquids or wastes containing substantive amounts of free liquids but does not apply to simply blood contaminated materials such as emptied blood bags, bandages, or “dirty” linens.

iv Recognizable human organs and body parts may not be landfilled

Violation (8240)

Medical wastes should be handled in accordance with the rules described above. If an observation as described above is made then a violation should be cited. This violation is regarding the proper handling and disposal of commercial medical waste. Household medical waste is exempt from this rule, so the observation must note obvious commercial waste. **Note: this violation is regarding the handling of medical waste and if a violation is cited is typically coupled with 8210. Refer to policy ([PN016](#)).**

Violation Number: 8250

8250

Dead animals improperly handled

Citation Reference: 0400-11-01-.04(2)(k)5(ii) (I-III)

- ii Be disposed of in Class I disposal facilities only if managed as follows:
- (I) Dead animals must be covered upon receipt with a minimum of two feet of cover and placed in an area which will receive additional waste and cover within 48 hours; or covered with three feet of compacted cover soil if placed in an area which will not receive additional waste and cover within 48 hours.
 - (II) Dead animals must not be disposed of in an area of a landfill which will not accommodate a minimum of five feet of depth from the finished landfill surface elevation when final cover has been put in place.
 - (III) Dead animals must be distributed for disposal over the landfill area in such a manner as to minimize the occurrences of future sinks and depressions in the final landfill cover caused by carcass decay.

Violation (8250)

Dead animal wastes should be handled in accordance with the rules described above. If an observation, as described above, is made then a violation should be cited. **Note: this violation is regarding the handling of dead animals and if a violation is cited is typically coupled with 8210.**

Violation Number: **8270**

8270

Exposed solid waste

Citation Reference: 0400-11-01-.04(2)(a)(3)

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

Violation (8270)

Regarding the overall performance standard, there should be no exposure of emplaced solid waste. An observance of waste being exposed due to erosion or cover stability should be cited as a violation. This will be coupled with an erosion control violation. For emplaced waste to have been exposed, erosion would have to exceed 50% in depth. If waste is found to have left the site this would be an unpermitted release of solid waste and would be a V2

Violation Number: **8280**

8280

No permanent benchmark

Citation Reference: 0400-11-01-.04(2)(o)

Permanent Benchmark - There must be installed on-site a permanent benchmark (e.g., a concrete marker) of known elevation.

Violation (8280)

The permanent benchmark is usually denoted in the permit plans. This benchmark, by rule, must be present and maintained.

Inadequate random inspection program

Citation Reference: 0400-11-01-.04(2)(s)

0400-11-01-.04(2)(s) - Random Inspection Program - The owner or operator of a permitted landfill must implement a program at the facility for detecting and preventing the disposal of regulated hazardous waste, unauthorized special waste, PCB's(>50 ppm), whole tires, lead-acid batteries, and liquid wastes. This program must include at a minimum:

1. Random inspection of five percent of the daily incoming loads.
2. Inspection of all suspicious loads.
3. Records of all inspections must be maintained in a bound notebook, and include the inspection date, vehicle identification, driver signature, identification of any unauthorized waste, disposition of any unauthorized waste, and facility inspector signature.
4. Training of facility personnel to recognize regulated hazardous waste.
5. Procedures for notifying the appropriate Division field office if an unauthorized waste is identified and left at the facility.
- 6.

Violation (8290)

Minimum requirements are listed above and in the rules. A random inspection program is also usually described in the facility's permit. This program should adhere to the facility's permit conditions and at a minimum the requirements above. If not, a violation should be cited. See example of a random inspection form in the appendix.

8300

Mishandling of special waste

Citation Reference: 0400-11-01-.01(4)(d)1.

Special Waste Approval Process - Conditional Approval - In his approval, the Commissioner shall specify those management conditions which he deems necessary to prevent or minimize potential adverse impacts to public health, and the environment in order to promote safe and efficient facility operation. Failure to meet the required management conditions is unlawful disposal under the Act.

Violation (8300)
<p>Class I facilities are issued special waste approvals for individual waste streams that, by regulatory definition, are either difficult or dangerous to manage. Some examples of these wastes include: sludge, bulky wastes, pesticide wastes, medical wastes, industrial wastes, hazardous wastes which are not subject to hazardous waste regulations, liquid wastes, friable asbestos wastes, and combustion wastes (see Special Waste Policy PN135). Special waste approvals usually specify special handling conditions for various types of waste. If a special waste is observed, that is not being handled as required by their special waste approval conditions, a V2 should be issued.</p>

8310

Buffer zone standard violated

Citation Reference: 0400-11-01-.04(3)(a)

Buffer Zone Standards for Siting Landfills - Class I Disposal Facilities must be located, designed, constructed, operated, and maintained such that the fill areas are, at a minimum:

1. 100 feet from all property lines;
2. 500 feet from all residences, unless the owner of the residential property agrees in writing to a shorter distance;
3. 500 feet from all wells determined to be downgradient and used as a source of drinking water by humans or livestock; and
4. 200 feet from the normal boundaries of springs, streams, lakes, (except that this standard shall not apply to any wet weather conveyance nor to bodies of water constructed and designed to be a part of the facility),

5. A total site buffer with no constructed appurtenances within 50 feet of the property line.

Violation (8310)

Buffer Zone Standard minimums are stated in the rules above, but all questions regarding buffer requirements should be checked according to the facility's permit conditions. In consultation with the DSWM engineer, if reasonable questions arise regarding a buffer zone standard, the latest survey can be requested. If there is no recent survey available, a survey may be requested to ensure buffer zones standards are being met.

Violation Number: **8320**

8320

Inadequate maintenance of leachate management system

Citation Reference: 0400-11-01-.04(2)(a)(3)

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

Citation Reference: 0400-11-01-.04(4)(a)7

Class I Disposal Facilities - The leachate collection and removal system must, at a minimum, meet the following requirements:

- (i) The leachate collection and removal system must be designed, constructed, operated, and maintained such that the leachate depth over the liner does not exceed one foot as calculated referencing the infiltration volume of the 25-year 24-hour storm through the intermediate cover.
- (ii) Leachate interception surfaces and associated piping must be designed, constructed, operated, and maintained to function without clogging throughout the scheduled post-closure care period;

(iii) Leachate collection reservoirs must:

- I. Be constructed (e.g., lined) such that collected leachate is contained;
- II. Have sufficient capacity to store the volume of leachate expected to be generated in 30 days, or other adequate provisions approved by the Commissioner; and
- III. Have a reliable and convenient means of detecting the level of collected leachate in the reservoir and of sampling such leachate

Violation (8320)

This violation will typically accompany another violation involving leachate (e.g., 8330, 8340, 8350) since maintenance of leachate equipment is often the likely cause of leachate problems. Equipment (e.g., leachate pumps, pipes, tanks, sump monitors, etc.) should be checked regularly. This violation is centered on maintenance. Maintenance requirements may be spelled out in the individual permit. If questions arise, the DSWM engineer can be consulted.

Inadequate Management of Leachate Management System (Inspector to check and record leachate levels at every landfill cell sump)

- Owner must demonstrate compliance. In order to accomplish this, facility should have the means to detect liquid level, and a way to read the liquid levels detected.
- If no level indication exists, it is owner's responsibility to demonstrate that there is ≤ 12 -inches of head above the cell liner. If this cannot be done, it will result in a V1 violation; If this situation is not resolved by the next inspection, it will result in a V2 violation.
- Liquid level readings >12 -inches but ≤ 36 -inches above the cell liner result in a V1 violation; If not resolved by the next inspection, it will result in a V2 violation
- Readings >36 inches above the liner identified during any inspection result in an automatic V2 violation.

Improperly Managed (Inspect availability of 30-days of storage, or other adequate storage / disposal provisions)

- *Rule states that owner must have 30-days of storage capacity, or other adequate provisions approved by the Commissioner.*
- *Questions to ask / Inspection points:*
- *Does the facility have tankage, ponds, lagoons, or other storage device capable of storing 30-days of leachate?*
- *30-day calculation based on current expected leachate generation. Owner or owner's engineer to provide current expected generation figures.*
- *If storage is available, is it empty, partially full, completely full? Having completely or partially full tanks does not constitute complete storage availability for constructed components.*
- *If no storage vessels are constructed, less than 30-days of storage is constructed, or constructed storage is full or partially full, does facility have other adequate provisions (POTW direct discharge, back-up to POTW, 3rd party disposal, Contingency Plan, etc.)?*
- *To be an adequate provision, owner should have provided a 3rd party disposal facility, or other POTW with an analysis of the sites leachate, possess approval from the alternate site (in writing), and have a means to transport the leachate to those facilities in the event the primary disposal option is unavailable.*

If no storage, inadequate storage, and / or no alternative disposal / storage provision exists, it should be listed as an AOC. If adequate storage, or other alternative provision does not exist in 90-days, it is a V1 violation. A Contingency Plan will constitute alternative provision.

8330

Leachate improperly managed

Citation Reference: 0400-11-01-.04(4)(a)8(i-iii)

Class I Disposal Facilities - Collected leachate:

- (i) Must be managed in accordance with any other applicable state and local regulations; and
- (ii) Must be sampled and analyzed, at least annually for Appendix I constituents, or for those ground water monitoring parameters listed in the permit, using sampling and analysis procedures as found in the facility permit. All leachate analysis results with all pertinent supporting data must be reported to the Commissioner with the next semi-annual ground water analysis report.
- (iii) Nothing in this rule shall prohibit the recirculation of leachate through the emplaced waste provided that the requirements of this Chapter are met.

Violation (8330)

This violation centers on the management of leachate associated with post-pumping activity. This is leachate that has been collected. Individual permits describe leachate management requirements. Records of leachate production and disposal should be checked regularly. As the above rules stipulate, leachate should be managed as described in the permit and sampled/analyzed annually. A V1 violation can be cited if these requirements are not met. A V2 violation can be cited if the V1 violation isn't corrected or leachate is being released from holding tank(s)/impoundment(s) into the environment. *See 8320 above for a relevant list of items that must be checked on inspection.*

8340

Inadequate leachate collection system

Citation Reference: 0400-11-01-.04(4)(a)7

Class I Disposal Facilities - The leachate collection and removal system must, at a minimum, meet the following requirements:

- (i) The leachate collection and removal system must be designed, constructed, operated, and maintained such that the leachate depth over the liner does not exceed one foot as calculated referencing the

infiltration volume of the 25-year 24-hour storm through the intermediate cover.

(ii) Leachate interception surfaces and associated piping must be designed, constructed, operated, and maintained to function without clogging throughout the scheduled post-closure care period;

(iii) Leachate collection reservoirs must:

(I) Be constructed (e.g., lined) such that collected leachate is contained;

(II) Have sufficient capacity to store the volume of leachate expected to be generated in 30 days, or other adequate provisions approved by the Commissioner; and

(III) Have a reliable and convenient means of detecting the level of collected leachate in the reservoir and of sampling such leachate.

Violation (8340)

This violation will typically be instigated by continued and/or repeated leachate violations, which indicates an inadequate leachate collection system. If repeated leachate issues remain, a consultation with the permit and/or DSWM engineer may be needed. A V1 violation should be cited if the conditions of the facility's permit are not met regarding the leachate collection system or at the very least the minimum requirements above in the rules. *See 8320 above for a relevant list of items that must be checked on inspection.*

Violation Number: 8350

8350

Leachate observed at the site

Citation Reference: 0400-11-01-.04(2)(a)(3)

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

Citation Reference: 0400-11-01-.04(4)(a)6,

Class I Disposal Facilities - Such facilities must be designed, constructed, operated, and maintained such that the final cover includes a cap which will:

- (i) Provide long-term minimization of migration of liquids through the closed facility;
- (ii) Function with minimum maintenance;
- (iii) Promote drainage;
- (iv) Accommodate settling and subsidence so that the cap's integrity is maintained; and
- (v) Meet the closure requirements of paragraph (8) of this rule.

Violation (8350)

Leachate observed on an interior slope and has no potential to leave the cell is not an issue.

Leachate observed on an exterior slope will be dealt with using the following guidelines:

- **If the leachate outbreak is found by facility personnel, contained to prevent possible further contamination, and the DSWM is notified and a corrective action plan established, then an area of concern may be issued. Identify, Contain, Notify, Correct. ICNC. ICNC. Notification may be a phone call, email or some type of logbook so the inspector can be notified prior to beginning the inspection.**
- **If the leachate seep is discovered by the inspector and is still within the cell perimeter a V1 violation will be issued.**
- **If the leachate outbreak is outside the cell perimeter whether found by facility personnel or the inspector a V2 violation will be issued.**

Violation Number: 8360

Leachate entering run-off

Citation Reference: 0400-11-01-.04(2)(a)(3)

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

8360

Citation Reference: 0400-11-01-.04(4)(a)6,

Class I Disposal Facilities - Such facilities must be designed, constructed, operated, and maintained such that the final cover includes a cap which will:

- (i) Provide long-term minimization of migration of liquids through the closed facility;
- (ii) Function with minimum maintenance;
- (iii) Promote drainage;
- (iv) Accommodate settling and subsidence so that the cap's integrity is maintained; and
- (v) Meet the closure requirements of paragraph (8) of this rule.

Violation (8360)

Leachate that enters runoff has a high potential for harm to the environment. This violation will be determined in part by the location of the violation. If the violation is in any runoff area that is outside the perimeter of the cell then a V2 violation **MUST** be cited. Any leachate outside the cell perimeter has a high potential for impact on surface and/or groundwater. While it is required that this leachate be collected and properly dealt with, it is impossible to ensure that environmental impacts have not already occurred. If the leachate is **STILL** within the cell perimeter then the inspector may apply the following approach:

- **If the leachate outbreak is found by facility personnel, contained to prevent possible further contamination, and the DSWM is notified and a corrective action plan established, then an area of concern may be issued ICNC. ICNC. Notification may be a phone call, email or some type of logbook so the inspector can be notified prior to beginning the inspection.**
- **If the corrective action plan is not followed then a V1 may be issued.**
- **If the leachate seep is discovered by the inspector and is still within the cell perimeter a V1 violation will be issued.**
- **If the leachate outbreak is outside the cell perimeter whether found by facility personnel or the inspector a V2 violation will be issued.**

Violation Number: **8370**

8370

Leachate entering a water course

Citation Reference: 0400-11-01-.04(2)(a)(3)

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable: The potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials

to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

Citation Reference: 0400-11-01-.04(4)(a)6

Class I Disposal Facilities - Such facilities must be designed, constructed, operated, and maintained such that the final cover includes a cap which will:

- (i) Provide long-term minimization of migration of liquids through the closed facility;
- (ii) Function with minimum maintenance;
- (iii) Promote drainage;
- (iv) Accommodate settling and subsidence so that the cap's integrity is maintained; and
- (v) Meet the closure requirements of paragraph (8) of this rule.

Violation (8370)

If leachate is observed entering surface water or likely groundwater (waters of the state), then a V2 violation should automatically be cited. There should be no V1s cited for this violation. **In addition, normally a plan to conduct sampling of the body of water and/or coordination of an investigation with the DWR should be implemented. A violation could result in additional action from other state and Federal agencies (e.g., Division of Water Resources or the Army Corps of Engineers).**

Violation Number: **8380**

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8

Inadequate gas migration control system

Citation Reference: 0400-11-01-.04(5)(a)

Gas Migration Control Standards - Class I Disposal Facilities must be designed, constructed, operated, and maintained such that any gases generated by decomposition or other reaction of solid waste are collected and vented, recovered, or otherwise managed such that:

1. There is no buildup of gas pressure under the final cover such that the functions of such cover (including any cap) are compromised;

2. The concentration of explosive gases in facility structures (excluding gas control or recovery system components) does not exceed 25 percent of the lower explosive limit for the gases;
3. The concentration of explosive gases at the property boundary does not exceed the lower explosive limit for the gases.
4. The minimum frequency of monitoring shall be quarterly and the operator shall keep records to comply with the monitoring and records requirements at part (5)(a)9 of Rule 0400-11-01-.02; and monitoring shall include at least the following locations:
 - (i) Underneath or in the low area of each on-site building;
 - (ii) At locations along the boundary as shown in the permit;
 - (iii) At any potential gas problem areas, as revealed by dead vegetation or other indicators; and
 - (iv) At any other points required by the permit.
5. Within 60 days of detection above the limits set in parts 1, 2, and 3 of this subparagraph, implement a Department approved remediation plan for the methane gas releases. Pending the remediation, the owner/operator must take all necessary steps to ensure immediate protection of human health.

Violation (8380)

Individual permits should require specific gas migration control system conditions. However, at a minimum, the rules above (Gas Migration Control Standards) require no buildup of gas pressure under the final cover system, exceeding the lower explosive (LEL) limits at the property boundary, and quarterly gas monitoring. Typically, quarterly gas monitoring documents are submitted to each environmental field office to be reviewed by the permit-writer/engineer. If quarterly gas monitoring documents have not been submitted to the field office or are not available at the facility, a V1 should be cited; if these quarterly gas monitoring documents can't be produced at all, a V2 should be cited.

Potential gas problem areas can be revealed by dead vegetation or odor. If gas problem areas have been identified, action is required that adheres to the rules cited above. Violations, at this point, would be cited if monitoring isn't implemented. DSWM does not regulate odors; however, this may indicate the gas collection system (if present) needs evaluation/repair/adjustment. If the problem areas mentioned above are outside the disposal area, a different course of action is needed compared to if the problems are within the disposal area.

Inadequate maintenance of gas migration control system**Citation Reference:** 0400-11-01-.04(5)(a)

Gas Migration Control Standards - Class I Disposal Facilities must be designed, constructed, operated, and maintained such that any gases generated by decomposition or other reaction of solid waste are collected and vented, recovered, or otherwise managed such that:

1. There is no buildup of gas pressure under the final cover such that the functions of such cover (including any cap) are compromised;
2. The concentration of explosive gases in facility structures (excluding gas control or recovery system components) does not exceed 25 percent of the lower explosive limit for the gases;
3. The concentration of explosive gases at the property boundary does not exceed the lower explosive limit for the gases.
4. The minimum frequency of monitoring shall be quarterly and the operator shall keep records to comply with the monitoring and records requirements at part (5)(a)9 of Rule 0400-11-01-.02; and monitoring shall include at least the following locations:
 - (i) Underneath or in the low area of each on-site building;
 - (ii) At locations along the boundary as shown in the permit;
 - (iii) At any potential gas problem areas, as revealed by dead vegetation or other indicators; and
 - (iv) At any other points required by the permit.
5. Within 60 days of detection above the limits set in parts 1, 2, and 3 of this subparagraph, implement a Department approved remediation plan for the methane gas releases. Pending the remediation, the owner/operator must take all necessary steps to ensure immediate protection of human health.

Violation (8390)

In the case of above-ground components of the gas migration control system, the walkover inspection should reveal leaking joints, line breaks, bubbling low points, an indication of major pressure differentials (e.g., liners bubbling up), line displacement due to thermal expansion, etc., that need repairing. If any of these problems are observed, a V1 violation should be cited.

Violation Number: **8420**

8420

Potential for explosions or uncontrolled fires

Citation Reference: 0400-11-01-.04(2)(a)2

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable:

2. The potential for explosions or uncontrolled fires.

Citation Reference: 0400-11-01-.04(5)(a)

Gas Migration Control Standards - Class I Disposal Facilities must be designed, constructed, operated, and maintained such that any gases generated by decomposition or other reaction of solid waste are collected and vented, recovered, or otherwise managed such that:

1. There is no buildup of gas pressure under the final cover such that the functions of such cover (including any cap) are compromised;
2. The concentration of explosive gases in facility structures (excluding gas control or recovery system components) does not exceed 25 percent of the lower explosive limit for the gases;
3. The concentration of explosive gases at the property boundary does not exceed the lower explosive limit for the gases.
4. The minimum frequency of monitoring shall be quarterly and the operator shall keep records to comply with the monitoring and records requirements at part (5)(a)9 of Rule 0400-11-01-.02; and monitoring shall include at least the following locations:
 - (i) Underneath or in the low area of each on-site building;
 - (ii) At locations along the boundary as shown in the permit;

(iii) At any potential gas problem areas, as revealed by dead vegetation or other indicators; and

(iv) At any other points required by the permit.

5. Within 60 days of detection above the limits set in parts 1, 2, and 3 of this subparagraph, implement a Department approved remediation plan for the methane gas releases. Pending the remediation, the owner/operator must take all necessary steps to ensure immediate protection of human health.

Violation (8420)

Generally, but not always, potential for explosions would be associated with the accumulation of landfill gas in confined situations such as within a structure. Quarterly monitoring and record keeping is required, at a minimum, at specified locations because of this potential problem. Potential for uncontrolled fires may occur is when a "hot" load is inadvertently off-loaded at the working face. If not caught early, this may develop into a serious condition. Careful monitoring by the operator should usually prevent this. Another very rare possibility is the occurrence of spontaneous combustion. In these last two situations, smothering the affected area with a solid layer of soil should control and extinguish the fire. Depending on the severity of the observation an appropriate violation (V1 or V2) should be cited and **immediate** action should take place for correction.

Violation Number: **8430**

8430

Waste not confined to a manageable area

Citation Reference: 0400-11-01-.04(6)(a)1

Waste Handling and Cover Standards - Class I Disposal Facilities - The unloading of solid wastes at the disposal area must be confined to the smallest practicable area, and must be supervised by trained facility personnel to ensure safety and compliance with waste restriction requirements.

Violation (8430)

At Class I disposal facilities, the unloading of solid wastes at the disposal area (working face) must be confined to the smallest practicable area, and must be supervised by trained facility personnel to ensure safety and compliance with waste restriction requirements. The smallest practicable area can be determined by considering the area that could be covered at the end of the day by the landfill operator. If the working face is larger than an area that can practicably be covered at the end of the day, a V1 should be cited. Also the size needed to accommodate normal daily waste receipt and traffic should be considered. Normally, operational costs will keep the size to a minimum.

8440

Improper spreading of waste

Citation Reference: 0400-11-01-.04(6)(a)2

Waste Handling and Cover Standards - Class I Disposal Facilities - Promptly upon unloading, solid wastes (except in the case of solid waste balefills or other instances specifically approved in writing by the Commissioner) shall be spread in shallow (less than three-foot) layers and compacted with appropriate equipment to the maximum practicable density. Special wastes must be handled as specified either in the permit or in the special waste approval granted by the Commissioner.

Violation (8440)

As described in the above citation, when waste is unloaded at the working face(s), unless otherwise permitted, it should be spread out in three-foot layers and compacted before additional waste is unloaded. Unloading too much waste at one time can result in improper spreading and impede with the operator's ability to achieve a maximum practicable density. A V1 violation should be cited if waste is spread in lifts that are clearly thicker than three-foot prior to compaction.

8450

Improper compacting of waste

Citation Reference: 0400-11-01-.04(6)(a)2

Waste Handling and Cover Standards - Class I Disposal Facilities - Promptly upon unloading, solid wastes (except in the case of solid waste balefills or other instances specifically approved in writing by the Commissioner) shall be spread in shallow (less than three-foot) layers and compacted with appropriate equipment to the maximum practicable density. Special wastes must be handled as specified either in the permit or in the special waste approval granted by the Commissioner.

Violation (8450)

Compaction should be at a maximum practicable density. Maximum practicable density can generally be determined if the compactor is operating on top of the waste and not **in** the waste. "Loose mounds" of garbage at the end of the working day should not be allowed. A V1 should be cited if improper compaction is observed. It is TDEC's expectation that proper compaction equipment should be used to achieve maximum practicable density for compaction. However, if other equipment can be demonstrated to achieve maximum practicable density, facilities will be required to show that demonstration formally.

8460

Unsatisfactory initial cover

Citation Reference: 0400-11-01-.04(6)(a)3

Waste Handling and Cover Standards - Class I Disposal Facilities - The compacted solid waste must be covered at the end of each operating day with an initial cover consisting of at least a six inch layer of compacted soil or an adequate standard of other material as approved by the Commissioner.

Citation Reference: 0400-11-01-.04(6)(a)5

Waste Handling and Cover Standards - Class I Disposal Facilities - All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

Violation (8460)

At Class I disposal facilities, the compacted solid waste must be covered at the end of each operating day with an initial cover consisting of a six inch layer of compacted soil or an adequate standard of other material (e.g., alternate daily cover [ADC]) as approved by the Commissioner. The *compacted* six inch daily cover soil required at the end of the working day at Class I facilities is intended to provide a barrier against vectors that may try to invade the buried waste. It also provides a means to minimize blowing litter and surface water infiltration. It provides a barrier against any fires that may occur in the waste. The six inch soil depth is a minimum, not an average, so that the daily cover should wind up being well over six inches in many areas of the daily cell. The surface should be sloped according to the plans and permit operating manual so that rainfall moves off the area rather than percolates into it. Alternative daily cover (e.g., tarps, shredder fluff, posi-shell) may be approved but should be clearly stated and approved within the permit or by the Commissioner in writing. It is good inspector practice to periodically conduct an inspection at the beginning or end of the working day to verify all waste is being properly covered. "Compaction", as used in this context above, means a surface seal compaction and can usually be accomplished with tracked equipment.

8470

Unsatisfactory intermediate cover

Citation Reference: 0400-11-01-.04(6)(a)4, 0400-11-01-.04(6)(a)5

Waste Handling and Cover Standards - Class I Disposal Facilities - Except for those completed portions to be finally closed (e.g., the final lift), all surfaces which will be left exposed for a period of over thirty days (e.g., initial and intermediate lifts) must be covered by an intermediate cover consisting of at

least a one-foot layer of compacted soil or other material approved by the Commissioner.

Citation Reference: 0400-11-01-.04(6)(a)5

Waste Handling and Cover Standards - Class I Disposal Facilities - All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

Violation (8470)

At Class I disposal facilities, except for those completed portions to be finally closed (e.g., the final lift), all surfaces which will be left exposed for a period of over thirty days (e.g., initial and intermediate lifts) must be covered by an intermediate cover consisting of at least a one-foot layer of compacted soil or other material approved by the Commissioner. Intermediate cover is intended to provide an extra measure of protection. This thickness allows for a certain loss of cover material due to erosion or other forces. However, remember the operator must take other erosion control measures (e.g., temporary mulching or seeding) as necessary to control erosion of the site so intermediate cover should not be left without being stabilized for long periods of time (see 8510 and 8180). Large non-vegetated areas should be avoided out of erosion concerns. Intermediate cover must be maintained to provide the same protection throughout the period until more waste is added or final cover is applied. No "flagging" (areas where waste is showing in various places in the cover dirt) should be observed in intermediate cover areas. If intermediate cover does not meet the standards in their permit or rules above, a V1 violation should be cited.

Violation Number: 8480

8480

Unsatisfactory final cover

Citation Reference: 0400-11-01-.04(6)(a)6.

Waste Handling and Cover Standards - Upon achieving final grade or as otherwise required by the Commissioner, final cover shall be placed as set forth in the closure standards of paragraph (8) of this rule.

Citation Reference: 0400-11-01-.04(8)(c)3(i)

Closure and Post-Closure Standards - The depth of final cover system shall be at least 36 inches of soil of which a minimum of 12 inches shall be for the support of vegetative cover.

The design of the final cover system shall be such that the infiltration volume of water will be equal to or less than the percolation volume through the bottom liner system or a design which includes a compacted soil layer of at least 24 inches which has a permeability no greater than 1×10^{-7} cm/sec,

whichever is less. This design shall be supported by the use of the HELP model or other equivalent method approved by the Commissioner.

An alternate final cover system may be used provided that it is demonstrated to the satisfaction of the Commissioner that the final cover system provides equivalent or superior performance to the minimum performance standard in this subpart.

Citation Reference: 0400-11-01-.04(8)(c)4.

Closure and Post-Closure Standards - The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that:

- (i) Minimizes precipitation run-on from adjacent areas onto the disposal facility or disposal facility parcel;
- (ii) Minimizes erosion of cover material (e.g., no steep slopes);
- (iii) Optimizes drainage of precipitation falling on the disposal facility or disposal facility parcel (e.g., prevent pooling); and
- (iv) Provides a surface drainage system which is consistent with the surrounding area and in no way significantly adversely affects proper drainage from these adjacent lands.

Violation (8480)

Final cover construction is detailed in the permit plans and closure/post closure plan for each individual site. If final cover shows significant evidence of dead vegetation, erosion, or if garbage is exposed (only for those facilities that do not have geomembranes), a violation should be marked and the engineer/permit-writer should be consulted following the inspection

8490

Excessive pooling of water

Citation Reference: 0400-11-01-.04 (2)(a)3

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

Citation Reference: 0400-11-01-.04(8)(c)4(iii)

Closure and Post-Closure Standards - Closure Requirements - The final surface of the disposal facility or disposal facility parcel shall be graded and/or provided with drainage facilities in a manner that optimizes drainage of precipitation falling on the disposal facility or disposal facility parcel (e.g., prevent pooling).

Citation Reference: 0400-11-01-.04(9)(b)1 (ix)

Engineering Plans - The Part II permit application must include: How run-on will be diverted from, and run-off will be removed from, the work areas, illustrating the locations and slopes of ditches, dikes, etc., to be utilized for such diversion/removal and the directions of flow.

Violation (8490)

This violation covers closed areas of the landfill and areas that are in post-closure. Excessive pooling of water on the landfill surface promotes the generation of leachate due to infiltration of that pooled water into the buried waste. It can also create mosquito breeding areas if not addressed in a timely manner. A V1 violation may be cited if any pooling is excessive. A V2 violation may follow if repeatedly not addressed or corrected.

8510

Unsatisfactory stabilization of cover

Citation reference: 0400-11-01-.04(6)(a)5,6

All initial and intermediate cover depths must be maintained until either additional wastes are placed over the area or final cover is applied.

Upon achieving final grade or as otherwise required by the Commissioner, final cover shall be placed as set forth in the closure standards of paragraph (8) of this rule.

Violation (8510)

Cover must be stabilized in some fashion to prevent the loss of cover. This can mean initial or intermediate cover. Failure to stabilize cover may result in soil losses. Excessive soil losses may result in cover violations.

Violation Number: **8520**

8520

Dumping of waste into water

Citation Reference: 0400-11-01-.04 (2)(a)3

Overall Performance Standard - The facility must be located, designed, constructed, operated, maintained, closed, and cared for after closure in such a manner as to minimize to the extent practicable the potential for releases of solid wastes, solid waste constituents, or other potentially harmful materials to the environment, except in a manner authorized by state and local air pollution control, water pollution control, and/or waste management control agencies.

Violation (8520)

This violation could be cited on rare occasions. Historically, this violation has been interpreted by the DSWM to mean no dumping of waste into water at the landfill site (and not interpreted as dumping into waters of the state as that is a direct violation of the Clean Water Act, which we do not regulate). However, with new landfill standards for leachate management, this is less of an issue as it relates to the overall performance standard. A rare example of this violation would be if a new cell construction is holding water and the leachate management system has not been tested for that cell to drain effectively, then waste should not be placed in collected water of a new cell until drained and properly tested for leachate collection.

Violation Number: **8530**

8530

Unsatisfactory records or reports

Citation Reference: 0400-11-01-.02(5)(a)7

Duty to Provide Information - The permittee must furnish to the Commissioner, within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying,

revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to the Commissioner, upon request, copies of records required to be kept by this permit. All records, including a copy of the permit and the approved Part I and Part II application, must be maintained at the facility or other locations as approved by the Commissioner.

Citation Reference: TCA 68-211-862(a)

Records of amount of solid waste received at disposal facilities and incinerators - The owner or operator of each Class I municipal solid waste disposal facility or incinerator shall be responsible for keeping an accurate written record of all amounts of solid waste, measured in tons, received at the facility.

Citation Reference: 0400-11-01-.04(7)(a)4(vii)

The operator must keep records of all ground water sampling activities conducted, the sample analysis results, and the associated ground water surface elevation throughout the active life of the facility and throughout the post-closure care period as well. Such records must be kept at the facility or at some other location within Tennessee as specified in the permit.

Citation Reference: 0400-11-01-.04(2)(k)3(i)(II)VI

Tires or shredded tires may not be stored for more than one (1) year without the written approval of the Division. The operator shall maintain records sufficient to establish the date each tire pile within a storage area was begun.

Citation Reference: 0400-11-01-.04(2)(s)

Random Inspection Program - The owner or operator of a permitted landfill must implement a program at the facility for detecting and preventing the disposal of regulated hazardous waste, unauthorized special waste, PCBs (>50 ppm), whole tires, lead-acid batteries, and liquid wastes. This program must include at a minimum:

1. Random inspection of five percent of the daily incoming loads.
2. Inspection of all suspicious loads.
3. Records of all inspections must be maintained in a bound notebook, and include inspection date, vehicle identification, driver signature, identification of any unauthorized waste, disposition of any unauthorized waste, and facility inspector signature.

4. Training of facility personnel to recognize regulated hazardous waste.
5. Procedures for notifying the appropriate Division field office if an unauthorized waste is identified and left at the facility.

Citation Reference: 0400-11-01-.01(4)(d)2

The Commissioner may require the operator to keep records on the receipt and management of certain special wastes. The operator shall keep copies of special waste approvals by the Department which the facility has accepted into the landfill and all recertifications submitted by generators of such waste.

Citation Reference: 0400-11-01-.02(3)(a)4

Operators shall keep records of all data and supplemental information used to complete permit applications until the end of the post-closure care period.

Citation Reference: 0400-11-01-.02(5)(a)9

Monitoring and Records

(i) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.

(ii) The permittee shall retain records of all required monitoring information. The permittee shall maintain records from all ground-water monitoring wells and associated ground-water surface elevations, for the active life of the facility, and for the post-closure care period as well. This period may be extended by request of the Commissioner at any time.

(iii) Records of monitoring information shall include:

- (I) The date, exact place, and time of sampling or measurements;
- (II) The individual(s) who performed the sampling or measurements;
- (III) The date(s) analyses were performed;
- (IV) The individual(s) who performed the analyses;
- (V) The analytical techniques or methods used (including equipment used);
and
- (VI) The results of such analyses.

Citation Reference: 0400-11-01-.08(3)

Records - The owner/operators of all municipal solid waste disposal facilities or incinerators shall maintain written records of waste received in tons. All records for the current month shall be maintained at the facility and open for inspection by the Department during normal operating hours. All other records shall be maintained at suitable office space in order that they may be protected from damage or loss. These records shall also be open for inspection during normal working hours. The maintenance site for these records shall be designated on the date of the first payment to the Department. Any change in location shall be designated on the payment to the fund. Records shall be maintained for three years. In the event that records are damaged or destroyed, the amount of waste received for that month or quarter shall be based on the maximum day on record multiplied by the number of working days in the month or quarter. Records shall be maintained on a daily basis organized by month. Waste shall be measured at the gate on a vehicle by vehicle basis. Each facility must use a standard reporting form provided by the Department.

Violation (8530)

Each inspection may include a complete records review. Policy ([PN072](#)) lists all the records that must be available and current. Violation of this item has potential for harm to human health and the environment and must be cited on the inspection form. A V1 violation can be cited if records are not in accordance to rules or specific permit. If records cannot be produced in a timely manner, a V2 should be cited.

Violation Number: 8540

8540

Groundwater monitoring system improperly maintained

Citation Reference: 0400-11-01-.02(5)(a)4.

Proper Operation and Maintenance - The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems only when necessary to achieve compliance with the conditions of the permit.

Violation (8540)

Monitoring wells should not be damaged (cracks in the base, bollards are not intact or have been moved) and should be locked. If questions arise about groundwater monitoring system, inspectors should consult with the DSWM geologist for guidance. A V1 violation should be cited if wells are not locked or maintained.

Violation Number: 8570

8570

Operation does not correspond with engineering plans

Citation Reference: TCA 68-211-104(3), TCA 68-211-105(b)

Unlawful Methods of Disposal - It is unlawful to construct, alter, or operate a solid waste processing or disposal facility or site in violation of the rules, regulations, or orders of the commissioner or in such a manner as to create a public nuisance.

No new construction shall be initiated nor shall any change be made in any solid waste processing facility or disposal facility or site until the plans for such new construction or change have been submitted to and approved by the Department.

Citation Reference: 0400-11-01-.02(5)(a)1.

Duty to Comply - The permittee must comply with all conditions of this permit, unless otherwise authorized by the Department in writing. Any permit noncompliance constitutes a violation of the Act and is grounds for termination, revocation and/or reissuance, or modification of the permit and/or the assessment of civil penalties by the Commissioner.

Violation (8570)

Inspectors should be familiar with landfill plans and operating manual. Inspectors should understand that each permit may state conditions that may not be declared elsewhere. Those conditions need to be reviewed and understood. Any engineering questions regarding this violation should warrant a consultation with the DSWM engineer.

Violation Number: 8580

8580

Operation does not correspond with permit condition(s)

Citation Reference: TCA 68-211-104(3)

Unlawful Methods of Disposal - It is unlawful to construct, alter, or operate a solid waste processing or disposal facility or site in violation of the rules, regulations, or orders of the commissioner or in such a manner as to create a public nuisance.

Citation Reference: 0400-11-01-.02(5)(a)(1)

Duty to Comply - The permittee must comply with all conditions of this permit-by-rule, unless otherwise authorized by the Department in writing. Any noncompliance constitutes a violation of the Act and is grounds for the assessment of civil penalties by the Commissioner.

Violation (8580)

The permit may state conditions that may not be declared elsewhere. These conditions must be reviewed and understood by the inspector and operator. Consultation with DSWM permit writer may be warranted.

8590

Violation Number: **8590**

Permits, plans, operating manual not available

Citation Reference: 0400-11-01-.02(5)(a)(7)

Duty to Provide Information - The permittee must furnish to the Commissioner, within a reasonable time, any information which the Commissioner may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit. The permittee must also furnish to the Commissioner, upon request, copies of records required to be kept by this permit. All records, including a copy of the permit and the approved Part I and Part II application, must be maintained at the facility or other locations as approved by the Commissioner.

Violation (8590)

All Class I disposal facilities are required to keep a copy of the permit, engineering plans, and operating manual on site or at a site agreed upon by the Commissioner. If these items are not available at the time of inspection a V1 should be cited. If they can't be produced by the follow-up inspection, a V2 may be cited.

8610

No operating scales and/or failure to maintain waste records

Citation Reference: TCA 68-211-862(a)(b)(1)(2)

Records of origin and amount of solid waste received at transfer stations, disposal facilities, and incinerators -- Exclusion -- Measurement of amount of solid waste received.

(a) The owner or operator of each Class I municipal solid waste disposal facility or incinerator or transfer station required to remit a surcharge under 68-211-835(d) shall be responsible for keeping an accurate written record of all amounts and county of origin of solid waste, measured in tons, received at the facility. This information shall be submitted to the department.

(b) Measurement in tons of solid waste received shall be accomplished by one (1) or more of the following methods:

(1) The provision of stationary or portable scales at the disposal facility or incinerator or transfer station for weighing incoming waste; or

(2) Implementation of contractual or other arrangements for the use of scales at a location other than the disposal facility, incinerator, or transfer station for weighing all waste destined for disposal at the facility.

Violation (8610)

All Class I disposal facilities are required to keep on site operational scales certified by the Division of Weights and Measures or other persons qualified to certify scales or a contractual agreement to use third party outside scales. If the scales are not operational and there is no contract to use other third party scale are at the time of inspection a V1 should be cited.

8320 Leachate System (Head Level Compliance – Flow Chart)

