7035.2836 COMPOST FACILITIES.

- Subpart 1. **Scope.** The owner or operator of a yard waste compost facility must comply with subparts 2 and 3 only. The requirements of subparts 4 to 7 apply to the owner and operator of a facility used to compost solid waste. The owner or operator of a source-separated organic material compost facility must comply with subparts 6 to 11.
- Subp. 2. **Notification.** The owner or operator of a yard waste compost facility shall submit a notification form to the commissioner on a form prescribed by the commissioner before beginning facility operations. The notification must include: the facility location; the name, telephone number, and address of the contact person; the facility design capacity; the type of yard waste to be received; and the intended distribution of the finished product.

Subp. 3. Operation requirements for yard waste compost facility.

- A. Odors emitted from the facility shall comply with the applicable provisions of any agency odor rules.
- B. Composted yard waste offered for use must be produced by a process that includes turning of the yard waste on a periodic basis to aerate the yard waste, maintain temperatures, and reduce pathogens.
- C. Compost will not contain greater than three percent inert materials (dry weight) that are greater than or equal to four millimeters as determined by the testing procedure under subpart 5, item J, subitem (3).
- D. By-products, including residuals and recyclables, must be stored in a manner that prevents vector problems and aesthetic degradation. Materials that are not composted must be stored and removed at least weekly.
- E. Surface water drainage runoff must be controlled to prevent leachate leaving the facility. Surface water drainage run-on must be diverted from the compost and storage areas.
- F. The facility shall be constructed and operated to prevent discharge of yard waste, leachate, residuals, and the final product into waters of the state.
- G. The facility operator shall submit an annual report to the commissioner by March 1 of each year for the preceding calendar year that includes the type and quantity, by weight or volume, of yard waste received at the compost facility; the quantity, by weight or volume, of compost produced; an average of the inert test results; the quantity, by weight or volume, of compost removed from the facility; and a market description.
- Subp. 4. **Design requirements for solid waste compost facility.** The owner or operator of a compost facility shall submit an engineering design report to the commissioner for approval with the facility permit application. The engineering report must comply with the design requirements in items A to G.
- A. Site preparations must include clearing and grubbing for the compost operating and storage areas, building locations, topsoil stripping, excavations, berm construction, drainage control

structures, leachate collection system, access roads, screening, fencing, and other special design features.

- B. Access to the facility must be controlled by a perimeter fence and gate or enclosed structures.
- C. Surface water drainage must be diverted around and away from the site operating area. A drainage control system, including changes in the site topography, ditches, berms, sedimentation ponds, culverts, energy breaks, and erosion control measures, must comply with part 7035.2855, subpart 3, items C to E.
- D. The composting, curing, and storage areas for immature compost must be located on a liner capable of minimizing migration of waste or leachate into the subsurface soil, groundwater, and surface water. The liner must have a permeability no greater than 1×10^{-7} centimeters per second and, if constructed of natural soils, be at least two feet thick. The liner must comply with part 7035.2855, subparts 3, item A; 4; and 5.
- E. Liquid in contact with waste, immature compost, and residuals must be diverted to a leachate collection and treatment system. The leachate collection and treatment system must comply with part 7035.2855, subpart 3, item B, and the applicable portions of part 7035.2815, subpart 9, items B to K.
- F. The facility must be designed for collection of residuals and must provide for the final transportation and proper disposal of residuals.
- G. The facility must be designed and operated to control odors in compliance with the applicable provisions of any agency odor rules.
- Subp. 5. Operation requirements for solid waste compost facility. The owner or operator of a compost facility shall submit an operation and maintenance manual to the commissioner for approval with the facility permit application. The manual must include a personnel training program plan, a leachate management plan, and a compost sampling plan and must comply with the operation requirements in items A to L.
- A. All access points must be secured when the facility is not open for business or when no authorized personnel are on site.
- B. The personnel training program plan must address the requirements of part 7035.2545, subparts 3 and 4, and the specific training needed to operate a compost facility in compliance with this subpart and subparts 6 and 7.
- C. All wastes delivered to the facility must be confined to a designated delivery area and processed or removed at least once a week to prevent nuisances such as odors, vector intrusion, and aesthetic degradation.
- D. All salvageable and recyclable materials must be containerized or stored and removed from the facility in a manner that prevents nuisances such as odors, vector intrusion, and aesthetic degradation.

- E. All compost residuals must be stored to prevent nuisances such as odors, vector intrusion, and aesthetic degradation. The residuals must be removed and properly disposed of at least once a week.
- F. The leachate management plan must describe how the facility will store, reuse, or dispose of collected leachate. If leachate is to be recirculated into the compost, it must be added prior to initiating the PFRP process described in item I.
 - G. Odors emitted by the facility must comply with any applicable agency odor rules.
- H. The owner or operator must cover or otherwise manage the waste to control wind dispersion of any particulate matter.
- I. Compost must be produced by a process to further reduce pathogens (PFRP). The temperature and retention time for the material being composted must be monitored and recorded each working day. Three acceptable methods of a PFRP are described in subitems (1) to (3):
- (1) The windrow method for reducing pathogens consists of an unconfined composting process involving periodic aeration and mixing. Aerobic conditions must be maintained during the compost process. A temperature of 55 degrees Celsius must be maintained in the windrow for at least three weeks. The windrow must be turned at least once every three to five days.
- (2) The static aerated pile method for reducing pathogens consists of an unconfined composting process involving mechanical aeration of insulated compost piles. Aerobic conditions must be maintained during the compost process. The temperature of the compost pile must be maintained at 55 degrees Celsius for at least seven days.
- (3) The enclosed vessel method for reducing pathogens consists of a confined compost process involving mechanical mixing of compost under controlled environmental conditions. The retention time in the vessel must be at least 24 hours with the temperature maintained at 55 degrees Celsius. A stabilization period of at least seven days must follow the enclosed vessel retention period. Temperature in the compost pile must be maintained at least at 55 degrees Celsius for three days during the stabilization period.
- J. The owner or operator must comply with the compost sampling and testing plan approved by the commissioner. Proposed changes to sampling equipment or procedures must be submitted to the commissioner for review and approval. Testing must be conducted when each batch of compost matures. The plan must include the sampling and testing requirements in subitems (1) to (6).
- (1) The compost maturity must be determined using testing protocol described in the sampling plan. "Mature" means more than 60 percent decomposition has been achieved as determined by an ignition-loss analysis and one test method approved by the commissioner including, but not limited to, the following:

Test Method

Maturity Standard

- (a) Carbon/nitrogen ratio U.S. EPA Method In the range of 10:1 to 20:1 9060A: Total Organic Carbon and Dumas
- (b) Dewar Self-Heating Method Temperature rise above ambient in $C\tilde{A}, \hat{A}^{\circ}$, range of $0\tilde{A}, \hat{A}^{\circ} 20\tilde{A}, \hat{A}^{\circ}$ Celsius
- (c) Respiration Rate, CO₂ Analysis <2-5 (mg. CO₂-C/g compost carbon-day)
- (d) U of M Z-test Soil and Crop Research on Municipal Solid Waste Class I treatment increases and that of the worms in the Compost Utilization in Minnesota, April noncellulose treatment remains the same 10, 1994
- (e) Cress Seed Germination Recommended Germination index in the range of 1.0 0.8 Test Methods, The Composting Council
- (2) Each batch of compost that has been determined to be mature must be analyzed for the metal contaminants listed in subpart 6, item A, subitem (1), using the U.S. EPA test methods in EPA SW-846. PCBs in the compost must be extracted using either method 3540 or 3550 and analyzed with method 8080.
- (3) The amount of inert material in each batch of compost that has been determined to be mature must be determined using testing protocol described in the sampling plan. Inert content greater than four millimeters shall be determined by passing four replicates of 250 cc oven-dried (70 degrees Celsius) samples of compost through a four millimeter sieve. Material remaining on the sieve shall be visually inspected and inerts, including glass, metal, and plastic, shall be separated and weighed. The weight of the separated inert material divided by the weight of the total sample, multiplied by 100, shall be the percent dry weight of the inert material content.
- (4) The mature compost must be analyzed for the following parameters using the testing protocol described in the sampling plan:
 - (a) pH;
 - (b) moisture content:
 - (c) particle size;
 - (d) NPK ratio; and
 - (e) soluble salt content.
- (5) The sampling plan must contain techniques for collecting and processing the samples required in subitems (1) to (4), including:
 - (a) the training and experience qualifications of persons who collect samples;
 - (b) equipment used to collect, process, and store samples;

- (c) sampling equipment cleaning procedures and other actions taken to prevent sample contamination;
 - (d) the location or locations where samples are collected;
 - (e) procedures used to collect grab samples;
 - (f) procedures used to process grab samples to form composite samples;
 - (g) chain-of-custody and sample storage procedures; and
 - (h) compost sampling quality assurance and quality control measures.
- (6) The sampling plan must describe how the test results from the samples required in subitems (1) to (4) will be utilized to define the compost at distribution, and must include:
- (a) a description of the batch process, statistical average, or other method used to classify the compost, and assign it physical and chemical properties; and
- (b) a description of the method used to calculate the cumulative and annual pollutant loading rates for Class II compost.
- K. An annual report complying with part 7035.2585 must be submitted to the commissioner by March 1 of each year for the preceding calendar year. A record of the following information must be maintained at the facility and included in the annual report:
 - (1) the quantity of source-separated compostables or solid waste delivered to the facility;
- (2) the quantity and general material breakdown of recyclables and rejects removed from the waste;
- (3) the sources and quantities of other materials used in the compost process, such as nutrient or bulking agents;
- (4) a summary of temperature and retention time for all compost produced verifying that the process, set out in item I, to further reduce pathogens is being met;
 - (5) the quantity and classification of all compost produced;
- (6) a summary of all lab analyses conducted according to the sampling plan approved under item J;
 - (7) a record of each Class II compost distribution, including the following:
- (a) a copy of the information sheet or label accompanying all Class II compost distributions according to subpart 7;
- (b) the name of the compost user and a legal description of the application site location, including the quantity of compost and acreage over which it was distributed;
 - (c) copies of the letters of notification to the local governments; and

- (d) a copy of the United States Geological Survey map of the application site and the surrounding areas showing contours and surface waters.
- L. If, for any reason, the facility becomes inoperable, the owner or operator of the facility must notify the commissioner within 48 hours and implement the contingency action plan developed under part 7035.2615.
- Subp. 6. Compost classification. Compost produced at a solid waste compost facility must be classified as Class I or Class II compost based on the criteria outlined in items A and B. Compost test results shall be used to classify the compost according to the approved sampling plan under subpart 5, item J, the maturity standard in subpart 5, item J, subitem (1), and the PFRP requirement in subpart 5, item I.
 - A. Class I compost must meet the following criteria:
- (1) Class I compost cannot exceed the contaminant concentrations in milligram per kilogram on a dry weight basis as listed in the following table or Code of Federal Regulations, title 40, section 503.13(b)(3), as amended, with the exception of mercury, which cannot exceed contaminant concentrations of five milligrams per kilogram.

Contaminant	Concentration (mg/kg)
Arsenic (As)	41
Cadmium (Cd)	39
Copper (Cu)	1,500
Lead (Pb)	300
Mercury (Hg)	5
Molybdenum (Mo)	18
Nickel (Ni)	420
Selenium (Se)	100
PCB	6
Zinc (Zn)	2,800

- (2) Class I compost must not contain greater than three percent inert materials (dry weight) greater than or equal to four millimeters as determined by tests according to the approved sampling plan under subpart 5, item J, subitems (1) to (5).
- B. Class II compost consists of any compost that fails to meet the Class I standards and meets the criteria in subitems (1) and (2):
- (1) Class II compost must meet the following pollutant loading rates and have a PCB concentration that does not exceed six milligrams per kilogram.

Pollutant	Cumulative Pollutant Loading Rate	
	(lbs/acre)	(kg/hectare)
Arsenic	37	41
Cadmium	34	39
Copper	1,338	1,500
Lead	267	300
Mercury	5	5
Molybdenum	16	18
Nickel	374	420
Selenium	89	100
Zinc	2,497	2,800

Pollutant	Annual Pollutant Loading Rate (for a containerized compost)	
	(lbs/acre)	(kg/hectare)
Arsenic	1.8	2
Cadmium	1.7	1.9
Copper	66.8	75
Lead	13.3	15
Mercury	0.25	0.25
Molybdenum	0.5	0.5
Nickel	18.7	21
Selenium	4.5	5
Zinc	124.6	140

⁽²⁾ Class II compost must not contain greater than four percent inert materials (dry weight) greater than or equal to four millimeters as determined by tests according to the approved sampling plan under subpart 5, item J, subitems (3) and (5).

Subp. 7. Compost distribution and end use. The owner or operator of a solid waste compost facility shall submit a compost distribution plan to the commissioner for approval with the facility permit application. The plan must comply with the requirements in items A to C.

- A. Compost distributed or marketed as a fertilizer, specialty fertilizer, soil amendment, or plant amendment, as defined in Minnesota Statutes, section 18C.005, must be registered with the Minnesota Department of Agriculture.
 - B. The allowable end uses for the compost must be listed and described in the plan.
- C. Class I compost may be distributed for unrestricted use. Class II compost may be distributed on a restricted basis. The commissioner or a compost operator trained as required in subpart 5, item B, shall determine the appropriate distribution for a Class II compost used in land application. Compost proposed to be distributed for end uses other than land application may be distributed with the commissioner's approval or as part of the approved facility compost distribution plan under this subpart. All Class II compost distributed must be accompanied by an information sheet or label describing the compost product and its physical and chemical quality, including at least the following information:
 - (1) the name and address of the generator;
- (2) a statement from the generator certifying that the compost meets the Class II classification standards under subpart 6, item B, and providing the standards;
 - (3) a list of best management practices to use when applying the compost;
- (4) the annual or cumulative application rate calculated according to the testing and reporting methods approved under subpart 5, item J, subitem (6);
- (5) the compost maturity tested and reported according to subpart 5, item J, subitem (1);
- (6) the compost inert content tested and reported according to subpart 5, item J, subitem (3); and
- (7) a statement of the compost parameter values tested and reported according to subpart 5.
- Subp. 8. Location requirements for a source-separated organic material compost facility. An owner or operator must not establish or construct a source-separated organic material compost facility in the following areas:
 - A. within locations described in part 7035.2555;
 - B. on a site with karst features including sinkholes, disappearing streams, and caves;
 - C. within five vertical feet of the water table; and
- D. unless a different distance is specified by a local unit of government by ordinance, within 500 feet horizontal separation distance as measured from the closest edge of all compost activities to the closest edge of a property boundary of the nearest residence, place of business, or public area, such as parks, wildlife areas, and public buildings, except:

- (1) upon approval of the commissioner, operational modifications, geographic features, or other natural or man-made physical characteristics that reduce nuisance conditions, such as noise, litter, and odor, may be used to reduce the 500-foot horizontal separation distance; and
- (2) adjacent commercial activities operated by the facility owner are excluded from the 500-foot horizontal separation requirement for the owner's residence or place of business.

Subp. 9. Design requirements for a source-separated organic material compost facility.

- A. The owner or operator of a source-separated organic material compost facility must submit an engineering design report to the commissioner for approval with the facility permit application.
- B. The engineering design report must comply with the design requirements in subitems (1) to (10).
- (1) Site preparations must include clearing and grubbing for the compost operating and storage areas, building locations, topsoil stripping, excavations, berm construction, drainage control structures, stormwater management systems, contact water collection systems, access roads, screening, fencing, and other special design features.
- (2) Access to the facility must be controlled to prevent unauthorized entry. A perimeter fence and gate, enclosed structures, or other physical barriers must be used to prevent unauthorized entry to the facility.
- (3) Stormwater drainage must be diverted around and away from the compost storage and operating areas. The stormwater drainage control system must be designed to manage a 24-hour, 10-year storm event. A stormwater drainage control system, including changes in the site topography, ditches, berms, sedimentation ponds, culverts, energy breaks, and erosion control measures, must comply with part 7035.2855, subpart 3, items C to E. For purposes of this subpart, water that has come into contact with compost in the curing and finished storage areas is considered stormwater. For purposes of this subpart, compost has reached the curing stage after PFRP as described in subpart 11, item B, subitem (10), has been achieved and the Solvita maturity index is greater than or equal to five with the ammonia greater than or equal to four. An owner or operator may use alternative test methods that are approved by the commissioner as equivalent to those listed in this subitem.
- (4) Contact water must be diverted to a contact water collection and treatment system. The contact water collection and treatment system must comply with applicable portions of part 7035.2815, subpart 9. For purposes of this subpart, immature compost is defined as not having reached the curing stage described in subitem (3).
- (5) The facility must be designed for collection of rejects and residuals and must provide for the final transportation and proper disposal of rejects and management of residuals.
- (6) The tipping, mixing, active composting, curing, and storage areas for compost must be located on a hard-packed, all-weather surface capable of minimizing migration of materials or contact water into the subsurface soil, groundwater, and surface water.

- (7) The working surface of a source-separated organic material compost facility must have a minimum of five feet of soil separation to the water table.
- (8) Unless designed as allowed under subitem (9), the site must have at least five feet of any combination of the following soil types comprising the soil profile above the water table: sandy clay loam, sandy clay, clay loam, silty clay loam, silty clay, and clay. An owner or operator may use an alternate separation distance according to unit (a). Water tables classified as perched or epi-saturated by the United States Department of Agriculture, Natural Resources Conservation Service, are not considered to be the seasonal high water table. The soil profile must be characterized by the use of soil borings, piezometers, or test pits as certified by a Minnesota-licensed soil scientist, engineer, or geologist. The owner or operator may propose the use of alternative methods for soil profiles according to unit (b). If the site cannot meet the soil criteria, an impervious pad or liner must be installed under all activity areas except curing and storage of finished compost.
- (a) The owner or operator may use an alternative separation distance that is approved by the commissioner as equivalent to that listed in this subitem if, during the previous five years:
- i. the site has experienced an abnormally wet period or an abnormally dry period; and
 - ii. the elevation of the water table at the site has changed.

The alternative separation distance must maintain a sufficient distance between the water table and compost activities to account for the movement of the water table through normal wet and dry years.

- (b) An owner or operator may use alternative methods that are approved by the commissioner as equivalent if the owner or operator can demonstrate that the alternative methods provide soil profile characterization substantially equivalent to characterization by soil borings, piezometers, or test pits.
- (9) Owners and operators whose sites are unable to meet the soil requirement listed under subitem (8) must install a pad system in all areas where source-separated organic materials will be managed and composted prior to curing. For the purposes of this subpart, compost has reached the curing stage after PFRP as described in subpart 11, item B, subitem (10), has been achieved and the Solvita maturity index is greater than or equal to five with an ammonia test result of greater than or equal to four. An owner or operator may use alternative test methods that are approved by the commissioner as equivalent to those listed in this subitem. Sites requiring a pad must comply with one of the options listed in units (a) to (c).
- (a) If a geomembrane is used, the liner system must be designed and built according to the applicable criteria in part 7035.2815, subpart 7. The surface must comply with part 7035.2855, subpart 3, item A.
- (b) If a concrete or asphalt pad is used, the surface must at a minimum meet requirements established in the Minnesota Department of Transportation, Road Design Manual, incorporated by reference under part 7035.0605. The owner or operator must inspect the pad

routinely and immediately repair any cracks, crumbling, and failures. The owner or operator must include the results of all inspections and repairs in the annual report submitted to the commissioner.

- (c) An alternative liner system design may be used when approved by the commissioner. The owner or operator must demonstrate that the proposed liner system will control contact water migration, meet performance standards, and protect human health and the environment.
- (10) The owner or operator must design the site to minimize liquids; odors; vectors, such as flies and rodents; and nuisance conditions, such as litter, noise, ponding water, and erosion.
- Subp. 10. Construction requirements for a source-separated organic material compost facility. The owner or operator must include the construction requirements in items A to G in the project specifications for all design features of a source-separated organic material compost facility.
- A. The owner or operator must notify the commissioner in writing at least ten days before the day construction is expected to begin on any design features.
- B. The construction firm's inspector must record all procedures completed during construction at a source-separated organic material compost facility. The record must document that design features were constructed according to parts 7035.2525 to 7035.2915. The record must include pictures, field notes, and all test results.
- C. The owner or operator must install a permanent benchmark on site and show its location on the facility as-built plan.
- D. The owner or operator must complete tests for compaction, grain size distribution, and field moisture density, at a minimum, for soil pads constructed at the facility.
- E. Flexible membranes must be installed during dry conditions. The seams joining membrane panels must be inspected as construction proceeds. Seams must be air tested and field seams must be tested for tensile strength. All flexible membranes must be protected after placement. The natural layer above and below the barrier layer must be free of roots, sharp objects, rocks, or other items that might puncture the liner.
- F. A quality control and quality assurance program must be established for all construction projects. The program must include the tests to be completed during construction. The program must also establish the frequency of inspection and testing, the accuracy and precision standards for the tests, procedures to be followed during inspections and sample collection, and the method of documentation for all field notes including testing, pictures, and observations.
 - G. If a geomembrane is used, the surface must comply with part 7035.2855, subpart 5.

Subp. 11. Operation requirements for a source-separated organic material compost facility.

A. The owner or operator of a source-separated organic material compost facility must submit an operation and maintenance manual to the commissioner for approval with the facility permit application. The manual must include a source-separated organic materials management plan, a personnel training program plan, a contact water management plan, a stormwater management plan, an odor management plan, and a compost sampling plan.

- B. The facility operations must at a minimum meet the requirements in subitems (1) to (16).
- (1) All access points must be secured when the facility is not open for business or when no authorized personnel are on site.
- (2) All source-separated organic materials delivered to the facility must be confined to a designated delivery area and processed or removed by the end of the day on which the materials were delivered to prevent nuisances such as odors, vector intrusion, and aesthetic degradation.
- (3) All salvageable and recyclable materials must be containerized or stored and removed from the facility in a manner that prevents nuisances such as odors, vector intrusion, and aesthetic degradation.
- (4) All rejects and residuals must be stored to prevent nuisances such as odors, vector intrusion, and aesthetic degradation. All rejects and residuals must be managed to prevent the generation of contact water. All contact water from rejects and residuals storage areas must be diverted to the contact water collection and treatment system. The commissioner shall grant an exception to contact water requirements for residuals if the owner or operator demonstrates during the permit application process or during a site inspection that residuals do not exceed three percent rejects by volume.
- (5) Liquid that has come in contact with source-separated organic material, immature compost, and residuals must be diverted to a collection and treatment system.
- (6) Contact water or stormwater may be reused in the compost process. It must be added to the source-separated organic materials prior to initiating the PFRP process described in subitem (10). Any water to be discharged into waters of the state must meet all federal and state national pollutant discharge elimination system requirements.
- (7) The owner or operator must operate and maintain a drainage system to divert stormwater around and away from the site operating area.
- (8) The owner or operator must cover or otherwise manage all the material on site to control wind dispersion of any particulate matter.
- (9) The owner or operator must develop and maintain a source-separated organic material management plan. The plan must, at a minimum:
- (a) include a waste analysis plan to characterize source-separated organic materials prior to acceptance at the facility;
- (b) identify the area of the facility where source-separated organic materials will be delivered; and
- (c) describe management methods to be employed when source-separated organic materials are delivered to the facility. The management methods must address reducing odor, vectors, such as flies and rodents, and nuisance conditions, such as litter, noise, ponding water, and

erosion; minimizing liquids; and mixing source-separated organic materials to achieve the proper moisture content, carbon-to-nitrogen ratio (C:N ratio), porosity, and pH.

Acceptable source-separated organic materials are defined in part 7035.0300, subpart 105a, and acceptable bulking agents include untreated wood waste, nonrecyclable paper, ground tree and shrub materials, and other similar materials approved by the commissioner.

- (10) Compost must be produced by a process to further reduce pathogens (PFRP). The owner or operator must monitor and record the temperature and retention time for the material being composted each working day until PFRP is achieved, and weekly thereafter. Each time a windrow is turned, the temperature must be measured no more than four hours before turning the windrow and no more than 24 hours after turning the windrow. Acceptable methods of PFRP are described in units (a) to (c).
- (a) The windrow method for reducing pathogens consists of an unconfined composting process involving periodic aeration and mixing. Construction of each windrow must incorporate porous materials that promote aerobic conditions within the windrow. Windrow height must not exceed 12 feet. Aerobic conditions must be maintained during the compost process. A temperature of 55 degrees Celsius must be maintained in the windrow for at least 15 days, during which the windrow must be turned at least once every three to five days, unless otherwise approved by the commissioner in the operation and maintenance manual due to defined weather conditions.
- (b) The static aerated windrow method for reducing pathogens consists of an unconfined composting process involving mechanical aeration of insulated compost piles. Windrow height must not exceed 12 feet. Aerobic conditions must be maintained during the compost process. The temperature of the compost pile must be maintained at 55 degrees Celsius for at least seven days.
- (c) The enclosed vessel method for reducing pathogens consists of a confined compost process involving mechanical mixing of compost under controlled environmental conditions. The retention time in the vessel must be at least 24 hours, with the temperature maintained at 55 degrees Celsius. A stabilization period of at least seven days must follow the enclosed vessel retention period. Temperature in the compost pile must be maintained at least at 55 or more degrees Celsius for three days during the stabilization period.
- (11) The owner or operator must comply with subpart 5, item J. For Class I compost as defined under subpart 6, the owner or operator may request removal of mercury (Hg) and polychlorinated biphenyls (PCB) sampling and testing requirements based on five years of sampling batch data. The data must demonstrate nondetect results for Hg and PCB.
- (12) The owner or operator must develop and maintain an odor management plan detailing the best management practices (BMPs) to be used during normal operations to minimize odors. These BMPs must address how the oxygen levels and porosity will be managed to minimize odors. The plans must detail how the facility will handle odor complaints and the specific odor control measures and safeguards the owner or operator will employ to resolve the complaints. At a minimum, the odor management plan must address BMPs to minimize odor generation in the

mixing and tipping areas, active compost processing areas, and contact water and stormwater ponding areas.

- (13) The owner or operator must develop a personnel training program. The personnel training program must address the requirements of part 7035.2545, subparts 3 and 4, and the specific training needed to operate a source-separated organic material compost facility in compliance with this subpart and subparts 6 to 10. Personnel training for a source-separated organic material compost facility must include a training schedule that:
- (a) provides an initial training session of 24 contact hours within 12 months of employment; and
 - (b) provides five contact hours of training on an annual basis.

A contact hour means a pertinent instructional or training session of 50 minutes. The commissioner shall prepare and make available to the operators and inspectors a list of accredited training courses and approved educational activities. The commissioner shall grant approval if the content includes topics such as the compost process, composting methods, facility operations, odor control, source-separated organic materials management, or other topics related to the best management practices of operating a compost facility.

- (14) The owner or operator must submit an annual report according to subpart 5, item K. The annual report must be submitted on a form prescribed by the commissioner. For source-separated organic material compost facilities, the annual report must include the county of origin and volume of source-separated organic materials received.
- (15) If for any reason the facility becomes inoperable, the owner or operator must notify the commissioner within 48 hours and implement the contingency action plan developed under part 7035.2615.
- (16) If a geomembrane is used, the owner or operator must comply with part 7035.2855, subpart 4.

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