



February 25, 2014

Minnesota Composting Council
Ms. Ginny Black, Chair
11410 49th Place North
Plymouth, MN 55442

Ms. Yolanda Letnes
Minnesota Pollution Control Agency
520 Lafayette Road North
St. Paul, MN 55155

RE: Minnesota Compost Council Comments to the MPCA's Proposed Compost Rule Amendment for source-separated organics materials composting facilities. Revisor's ID Number 04110.

Dear Ms. Letnes:

The Minnesota Compost Council (hereafter referred to as the MNCC) would like to thank the Minnesota Pollution Control Agency (hereafter referred to as the "MPCA" or "Agency") for the opportunity to comment on the proposed Compost Rule and for extending the comment period to 60 days. The MNCC is an all-volunteer organization, so the longer comment period has been extremely helpful in pulling together the MNCC's comments. The following comments are submitted by the MNCC in response to the MPCA request for comments, published January 6, 2014.

The MPCA states that the purpose of the proposed source-separated organics composting (SSOM) rules process is to recognize the State's strategy of moving organics material management up the hierarchy and provide regulatory relief without jeopardizing environmental protection. The MNCC supports that effort and has worked with other state organization similar to the MNCC, as well as the US Compost Council to forward appropriate regulations for SSO composting.

The MNCC believes that the regulatory approach presented in the MPCA proposed compost rule amendment falls short in meeting the stated purpose as the proposed rules are unnecessarily onerous and will not provide the needed regulatory relief to facilities, thereby impeding the movement of organics management to a higher level on the waste management hierarchy. The MNCC also believes that the Statement of Need and Reasonableness (hereafter referred to as SONAR) does not provide adequate justification for many of the proposed regulatory standards.

The MNCC Board, members and associated non-members have spent a significant amount of time pulling the following comments together. The MNCC has encouraged industry professionals and business to submit their comments and concerns, and if possible support the MNCC's comments, during the public notice period through e-mail notification to its members and associated industry representative. In addition, the MNCC has held meetings with its membership and associated businesses and organizations to solicit input on the MNCC comments. With that, the MNCC respectfully submits the following Comments.

Comment #1 – Consistent Use of Language

Current proposed language for 7001.3375 Subp. B

2.11 B. a description of the design and physical features of the facility, including run-off, run-on, and leachate control systems;

Comment: Use consistent terms throughout the document. In other sections, run-off and run-on are listed as storm water and surface water. Leachate was removed or changed to contact water for the remainder of the Source-Separated Organics Compost Facilities with the exception of this section.

Recommendation: If using consistent language, Item B should read as follows:

2.11 B. a description of the design and physical features of the facility, including ~~run-off, run-on, storm water and surface water,~~ and leachate control systems

Comment #2 – Contact Water Definition

Current language for 7035.0300, Subp. 20a

4.17 Subp. 20a. **Contact water.** "Contact water" means water that has come into contact
4.18 with source-separated organic material in the tipping area, source-separated organic
4.19 material in the mixing area, rejects, residuals, or active compost. For purposes of this
4.20 subpart, compost is active until it has reached PFRP as described in part 7035.2836,
4.21 subpart 11, item B, subitem (10), and the Solvita maturity index is greater than or equal to
4.22 five with ammonia greater than or equal to four.

Comments: The Solvita maturity index is cited several times throughout the rule for use as an indicator of compost stability. The MNCC believes it is inappropriate for the State to endorse a specific industry testing method in its rules unless it adopts it as the standard or presents it as a BMP. The MPCA should allow the use of the Solvita test, but not endorse it specifically.

It is inappropriate to characterize residuals as equal to raw feed stock delivered to the facility, in the mixing area or similar to the materials in the area that is undergoing PFRP. Residuals have been processed through the PFRP process and have achieved enough maturity to be moved to the curing area. These materials should be considered the same as materials in the curing or finished compost areas, as these materials can be sold for use as a product in certain applications.

The MNCC believes that using the word "active" to describe the PFRP process is confusing. Technically, the composting process is "active" all the way through the process. In fact, what makes compost valuable is the fact that it *has an active microbial population that, when incorporated into the soils, converts nutrients in soils that are not readily absorbable by plants to a usable form of nutrients.*

Recommendation #1: The MNCC requests the MPCA set standards for CO₂ and ammonia levels that composted materials must meet to be moved from the PFRP processing area to the curing area and let the operator choose the test methods to show compliance. The USCC's TMECC is suggested as the source for this measure as it is updated to industry standards on a periodic basis.

In addition, Rachel Sukeforth of Wood's End Laboratory has made the following comments regarding the use of this test.

"In our Solvita Compost Kit manual, there is an interpretation chart for the Index. While we do not make guideline recommendations using the Ammonia paddle results independent of the Solvita Maturity Index, I can

see why the proposed rules do. You can have a Solvita Maturity Index value of 5 or better and get an Ammonia paddle value less than 4, although if the process was planned well and successful, this shouldn't be the case.... by the new rules qualifying that the Ammonia value should be a 4 or better, this will ensure that extra Nitrogenous material and particles aren't leached into a system. And if you're using the Solvita test kits prior to moving your compost into the "curing" category, then you'll know if your compost is still giving off ammonia emissions and therefore your compost has a low C:N and adjustments should be made, and the compost should be left to compost further."

Recommendation #2: The MNCC request that the word "residuals" be removed from the definition of "Contact water".

Recommendation #3: The MNCC recommends the deletion of the word "active" and replace this with "compost that has not yet reached the curing stage" as is the wording in 7035.2836 Subp.9, item B, subitem (3) and subitem (9).

Suggested wording for the Contact water definition is given below:

Suggested Language:

4.17 Subp. 20a. **Contact water.** "Contact water" means water that has come into contact

4.18 with source-separated organic material in the tipping area, source-separated organic

4.19 material in the mixing area, ~~rejects, residuals, or active~~ and compost that has not yet reached the curing stage. For purposes of this

4.20 subpart, compost has reached the curing stage after it has reached PFRP as described in part 7035.2836,

4.21 subpart 11, item B, subitem (10), and the Solvita maturity index is greater than or equal to

4.22 five with ammonia greater than or equal to four or other TMECC approved test methods that would provide comparable analytical indicators.

Comment #3 – Residual Definition

Current proposed language for 7035.0300, Subp. 93b

5.6 Subp. 93b. **Residuals.** As applied to source-separated organic material compost

5.7 facilities, "residuals" means organic materials that require further composting due to their

5.8 large size, such as tree branches.

Comment: Residuals are organic materials that have completed the PFRP process and have been screened out because of their size (or overs). Some producers sell these "overs" as a product, while other producers re-incorporate the "overs" back into their windrows to inoculate their fresh windrows.

Recommendation: The MNCC believes that language below better reflect the actual practices for residuals. The MPCA should adopt the following language to clarify this.

Suggested Language:

5.6 Subp. 93b. **Residuals.** As applied to source-separated organic material compost

5.7 facilities, "residuals" means organic materials that have gone through the composting process and have met PRFP. Residuals may be marketed as a finished product or they may be reincorporated to further reduce their particle size. ~~require further composting due to their~~

5.8 ~~large size. such as tree branches~~

Comment #4 – Backyard Compost Site Definition and Exemption

The MPCA’s proposed compost rule deletes the definition and exemption for “backyard compost site” and lumps those sites into the new definition of “small compost site” (7035.0300, subp. 99a). Small compost sites do not require a permit, yet regulatory requirements have been placed in the “exemption” under 7035.2525, Subp. 2 A. The MNCC believes that this qualified exemption places backyard compost site squarely in the regulated category even though those site will not be required to have a permit.

This change brings an estimated 120,000 – 150,000 “backyard compost sites” into direct regulation. The people regulated would include: home gardeners; Master Gardeners; organic gardeners; ethnic groups such as Hmong gardeners; urban neighborhood gardening groups, schools, etc. These proposed rules would place a new and un-necessary burden on backyard composters by placing additional barrier for backyard composters and goes against the States stated goal of encouraging composting in Minnesota.

Further, the MNCC is concerned that the MPCA has made no attempt to inform backyard composters that the proposed rules remove this history exemption from MPCA regulation. Finally, it is clear that MPCA has neither the staff nor the capacity to enforce these regulatory requirements on 120,000 to 150,000 Minnesota backyard composters.

The MPCA has provided no data, analysis, scientific studies, or historic public health records to support the need for these regulatory requirements. Backyard composters do not regard their feedstock as “waste” but rather as a material that through composting becomes an important beneficial soil amendment for growing healthy plants on their own properties. Backyard composting is not a business or an industrial activity. The overall environmental benefit of backyard composting is much better than landfilling or incineration or even commercial composting and should be encouraged, not discouraged.

Backyard compost sites have never been included as a “permitted disposal facility” in Minnesota and the MNCC believes that they should remain exempt from the proposed compost rules. Furthermore, a provision allowing additional materials be accepted as approved by local units of government by ordinance should also be added to the definition of a backyard compost site. This would facilitate local jurisdiction’s ability to regulate residents who generate poultry litter generated on site or other items in their backyard compost sites.

Recommendation #1: Re-establish the definition for “backyard compost sites” and list as exempt from all Agency regulation. Suggested language for both the definition and exemption is given below:

Definition: Backyard compost sites mean: a site used to compost food scraps, garden waste, weeds, lawn cuttings, leaves, and prunings from a single family household, apartment building, or single commercial office, a member of which is the owner, occupant, or lessee of the property. Additional materials may be deemed acceptable by the local governmental unit by ordinance.

The suggested language for exempting backyard compost sites from Agency regulation is given below.

Current proposed language for 7035.2525 Solid Waste Management Facilities Governed

9.9 *Subp. 2. **Exceptions.** Parts 7035.2525 to 7035.2915 do not apply to the following*

9.10 *waste management facilities or persons, except as indicated:*

9.11 *A. ~~backyard compost sites~~ backyard compost sites*

9.12 *B. small compost sites must only comply with parts 7035.2535, subpart 1, items A to E, 7035.2555; and 7035.2565.*

Comment #5 – Small Compost Sites Definition

7035.0300, Subp. 99a

Comment: Small compost sites allowed to take food scraps will most certainly receive incidental amounts of fats, oils, greases, meat, and dairy. In addition, if small sites are allowed to accept yard waste it will be impossible to eliminate animal manure since pets and wild animal waste is regularly incorporated in yard waste. Sub-item 1 on page 16 of the SONAR states that incidental amounts of fats, oils, grease, meat and dairy resulting from food preparation or post-consumer scraps will be received by small compost sites. The same is true of animal manure.

Another factor is many cities allow the raising of poultry or other animals on site. These “operations” generate small quantities of manure that need to be managed. The MNCC is requesting the Agency accommodate local governmental units (LGU) ability to regulate the management of these waste by incorporating permissive language allowing LGU’s to designate other materials be managed in a backyard compost situation.

Furthermore, these rules govern all small compost sites in the State of Minnesota. The size allotment of 100 cubic yards may seem too large for sites located within the metro region, however, this size may be too restrictive for small sites in Greater Minnesota. Local units of government can reduce the size by ordinance, but they cannot increase the size. Therefore, the MNCC is requesting a change from 80 cubic yards to 100 cubic yards to accommodate the different situations throughout the state.

Recommendation #1: For clarity, the MNCC request that language in the proposed Rule language be changed to allow for the acceptance of incidental amounts of fats, oils, grease, meat, dairy, and animal manure in small compost facilities. In addition, MNCC also requests that the Agency incorporate language that allow LGU’s to allow other acceptable materials by city ordinance.

Recommendation #2: The MNCC request that the Agency increase the volume allowed from 80 cubic yards to 100 cubic yards or equivalent weight, not including carbon feed stocks, to reflect current realities for small compost sites throughout the State.

Proposed language modifications to the small compost site definition are below.

Suggested Language:

5.10 Subp. 99a. **Small compost site.** *"Small compost site" means a site that:*

5.11 A. *is used to compost:*

5.12 (1) *food scraps;*

5.13 (2) *yard waste;*

5.14 (3) *poultry litter generated on site only if the compost produced is used on*
5.15 *site;*

5.16 (4) *non-recyclable paper; or*

5.17 (5) *compostable materials meeting ASTM D6400 or ASTM D6868,*

5.18 *incorporated by reference under part 7035.0605;*

5.19 (6) *incidental amounts of fats, oils, grease meat, dairy and animal manures;*

5.20 *other items as approved by local governmental units by ordinance:*

5.21 B. *does not accept diapers, or sanitary products;*

5.22 C. *does not exceed 80100 cubic yards on site at any one time, including collected*

5.23 *raw materials and compost being processed, but excluding carbon materials or finished compost; and*

6.1 D. *is where the materials under item A are managed to minimize odor and the*

6.2 *creation of nuisances and public health risks.*

Comment #6 – Source-separated Organic Materials Definition

Current proposed language for 7035.0300, Subp 105A

6.4 Subp. 105a. Source-separated organic material.

6.5 A. "Source-separated organic material" means:

6.6 (1) source-separated compostable materials and yard waste, as defined
6.7 under Minnesota Statutes, section 115A.03, except sanitary products and diapers;

6.8 (2) vegetative wastes generated from industrial or manufacturing processes
6.9 that prepare food for human consumption; and

6.10 (3) compostable materials that meet the standards in ASTM D6400 and
6.11 ASTM D6868, incorporated by reference under part 7035.0605.

6.12 B. Unless specifically permitted by the commissioner under part 7001.0150,

6.13 source-separated organic material does not include:

6.14 (1) animal wastes;

6.15 (2) fish wastes generated from industrial or manufacturing processes;

6.16 (3) meat by-products generated from industrial or manufacturing processes;

6.17 (4) sanitary products; or

6.18 (5) diapers.

6.19 C. Source-separated organic material does not include:

6.20 (1) septage; or

6.21 (2) sewage sludge, as defined in part 7041.0100, subpart 49.

Comment: Other states allow for the composting of animal wastes, fish wastes, and meat by-products without the need for additional approval. The MPCA has not provided scientific data that supports the need to have special consideration for composting in the State. Furthermore, we understand that 7001.0150 may allow for well-managed compost sites to test the compostability of new feed stocks in the future while some sites are already allowed to compost items listed in Section B.

Recommendation #1: Allow animal waste and fish waste and meat by-products from industrial and manufacturing processes to be included as acceptable materials at SSO compost facilities.

Recommendation #2: Add language that permits the Commissioner to approve additional materials on a case by case basis. This will accommodate future request without the need to amend the rules.

Below is the MNCC's suggested language changes:

Suggested Language:

Subp. 105a. Source-separated organic material.

A. "Source-separated organic material" means:

(1) source-separated compostable materials and yard waste, as defined under Minnesota
Statutes, section 115A.03, except sanitary products and diapers;

(2) vegetative wastes generated from industrial or manufacturing processes that prepare food for
human consumption; ~~and~~

(3) compostable materials that meet the standards in ASTM D6400 and ASTM D6868,
incorporated by reference under part 7035.0605;-

(4) animal wastes;

(5) fish wastes generated from industrial or manufacturing processes;

(6) meat by-products generated from industrial or manufacturing processes; and

(7) other organic materials as approved by the Commissioner on a case by case basis.

B. Unless specifically permitted by the commissioner under part 7001.0150, source-separated organic material does not include:

- ~~(1) animal wastes;~~
- ~~(2) fish wastes generated from industrial or manufacturing processes;~~
- ~~(3) meat by-products generated from industrial or manufacturing processes;~~
- (4) sanitary products; or
- ~~(5) diapers.~~

C. Source-separated organic material does not include:

- (1) septage; or
- (2) sewage sludge, as defined in part 7041.0100, subpart 49.

Comment #7 – 5 Foot to Water Table

Current proposed language for 7035.2836, Subp. 8. C.

10.19 C. within five vertical feet of the water table; and

Comment #1: For the purposes of this rule, the MNCC request that the MPCA include a definition for water table that is different from the definition used for other solid waste facilities. The current definition, cited on page 22 of the SONAR, states, “Water table is the surface of the ground water at which the pressure is atmospheric. Generally, this is the top of the saturated zone.” could be misinterpreted as it does not reference a time period associated with the saturated zone. This change in definition is needed because the permanently saturated zone may, at certain times of the year, be mistaken for the seasonally or periodically saturated zone. To confirm if a source separated organic material composting facility may be located at a designated location, the MNCC feels verification of distance to the water table should be completed by a licensed Minnesota soil scientist.

Comment #2: The MNCC believes that the Agency has presented no scientific data supporting the requirement for a five (5) vertical foot separation to the water table.

Our recommended definition of water table for these rules is as follows:

Suggested Language:

C. *Within five vertical feet of the water table. For the purposes of these rules, the water table is defined as the zone of permanent groundwater saturation as determined by a licensed Minnesota soil scientist.*

Comment #8 – Eligible Soil Types

Current proposed language for 7035.2836, Subp. 9 B (8)

- 12.20 (8) *Unless designed as allowed under subitem (9), the site must have at least*
- 12.21 *five feet of any combination of the following soil types comprising the soil profile above*
- 12.22 *the water table: sandy clay loam, sandy clay, clay loam, silty clay loam, silty clay and clay.*
- 12.23 *An owner or operator may use an alternate separation distance according to unit (a). Water*
- 12.24 *tables classified as perched or epi-saturated by the United States Department of Agriculture,*
- 12.25 *Natural Resources Conservation Service, are not considered to be the seasonal high water*
- 12.26 *table. The soil profile must be characterized by the use of soil borings, piezometers, or test*
- 13.1 *pits as certified by a Minnesota-licensed soil scientist, engineer, or geologist. The owner*
- 13.2 *or operator may propose the use of alternative methods for soil profiles according to unit*
- 13.3 *(b). If the site cannot meet the soil criteria, an impervious pad or liner must be installed*
- 13.4 *under all activity areas except curing and storage of finished compost.*

Comments: In the MPCA's 2nd Preliminary Draft Rule dated October 10, 2012, the Agency allowed a greater variation of soils textures to comply with the required five foot soil separation distance to the water table. Specifically, the MPCA hydrologist working with the rules team believed that the five (5) foot soil separation distance combined with the original nine soil types: sandy clay loam, loam, silt loam, silt, sandy clay loam, sandy clay, silty clay loam, clay, silty clay, provided the needed protection of the water table. The MNCC believes that the current language is unnecessarily onerous, is arbitrary, and places a significant burden to siting compost facilities within the state. The original nine soil types with the 5 foot depth to water table represent a very conservative standard and should be re-instated.

In the SONAR, the MPCA states that requiring finer-grained soils would retard infiltration, and further promote attenuation while "Highly" permeable soils provide little or no natural attenuation of contact water. The assertion made by the MPCA is that loam, silt and silt loam are highly permeable and offer no protection to the ground water. The justification for the elimination of these soils is described on page 28 of the SONAR. It states "Loam, silt loam and silt were initially considered and then removed due to their highly permeable nature." The MPCA did not provided any scientific or supporting evidence to substantiate their claim that these soils are "highly" permeable and would provide little or no natural attenuation.

In fact, Subpart 9, Item B, Subitem 8, of the SONAR states that loams, silts and silt loams were "...removed due to their highly permeable nature." Asserting that these soils are "*highly permeable*" is patently incorrect. The U.S. Soil Conservation Service lists these soils types as moderately permeable. In addition, Table 2 on page 28 of the SONAR also lists those soils as moderately permeable. However, the table offers an incomplete list of soils and is misleading because it fails to include rapid, very rapid and moderately rapid soil types. These would include sand, loamy sand and sandy loam.

A permeability study completed by Braun at the Specialize Environmental Technology compost site located in Chanhassen, Minnesota found that compaction alters permeability. The native loam soils had permeability of .78 in/hr. Once a six inch grave base was added and the soil compacted the permeability decrease to .19 in/hr. See attached report by Braun Intertec, Project BL-05167, of December 11, 2013. It is a well establish fact that native soils can be altered through compaction to create a lower permeability rate. In fact, this does happen just by running heavy equipment over the site during construction of the facility and in general operations at the facility. Yet this is not acknowledged.

Minnesota surface sewage treatment system program Rules Chapter 7080 through 7083 outline the design, installation and operating requirements for septic systems in Minnesota. A septic system is an on-site method of treating and disposing of sanitary wastewater. A typical septic system often consists of a buried tank that removes suspended solids from raw wastewater, an effluent distribution system and a soil absorption area where effluent undergoes additional treatment and attenuation through the processes of adsorption, dispersion, and biodegradation. Septic systems are commonly found in rural and some suburban areas where people often rely on ground water for their drinking water. Septic systems that are properly sited, designed, constructed, operated, and maintained pose little threat to drinking water sources.

Minnesota Rules 7080 through 7083 allow for raw sewage effluent to be injected into soil types ranging from very rapid, such as, sands to very slow, such as, clays. In addition, the Rules only require 3 feet of vertical separation to the seasonal water table. These rules have recognized that the soils including loam, silt, silt loam, sandy loam, loamy sand and sand do, in fact, provide adequate attenuation, protect the ground water and meet the non-degradation standard of Chapter 7060.

The contaminant concentrations of compost contact water falls well within the range of residential strength septic effluent. Septic effluent is injected into the subsoil while contact water will be collected in holding ponds on the surface through the use of hard-packed, all weather surfaces designed to minimize the migration of contact water into soils. The MPCA provides an example of an acceptable hard-packed on page 27 of the SONAR as “12 inches thick and have a 100% by weight passing through a 1” sieve and a minimum of 15% by weight passing through #200 sieve. The soil should be compacted within 5% of the optimum moisture content and reach an in-place unit weight of 140 pounds per cubic foot.” In effect, the actual separation distance will be a minimum 6 feet from the water table including an impervious pad, twice the distance required by septic system.

Infiltration rates vary widely in native soils. So much in fact, that the three unqualified soil types, loam, silt and silty loam, can in reality, have infiltration rates that overlap with, and thus equate to, the acceptable soil types of a clay loam, sandy clay loam, sandy clay, and silty clay loam. According to Table 2: Soil Permeability Chart, page 28 of the SONAR the three un-qualified soil types can be just as protective of the water table as most of the acceptable soil types in the Rule. This points out a major inconsistency with the justification of the MPCA proposed Rules.

Removing loam, silt, and silt loam soil types from the proposed Rule dramatically reduces potential land where compost facilities can be sited. According to the Natural Resource Conservation Service, (NRCS) Official Series Description, which classifies soils, it describes the Lester Loam Soil, the Minnesota State Soil, as a soil that is moderately permeability, well drained, with a depth greater than 5 feet to a water table and often has layers of clay loam textures. This most common soil type would still be protective of the water table but under the proposed Rule language could not be used to site a compost facility because those soils are eliminated in the current language.

Eliminating the common soil types of loam, silt and silt loam which possess the physical characteristics able to protect the ground is arbitrary and capricious which ultimately serves to limit the ability to site new compost sites. The effect of eliminating these most commons soils with a permeability, or impermeability, adequate to protect ground water, will create situations where potential sites may offer a 20 foot loam soil separation to the water table, but are still not acceptable due to an arbitrary regulation.

The MNCC has yet to see any scientific evidence provided by the MPCA proving that 5 feet of soil separation and a hard-packed all-weather surface is necessary to protect a water table. However there is scientific data, collected at the MN Landscape Arboretum Demonstration Organics Compost Facility from 2007 through 2010, that demonstrates that contact water from an actual compost site is less concentrated in contaminants than residential strength septic effluent or that of commercial strength septic effluent from a restaurant that is high in fats, oils and greases. The MPCA has this data but has failed to use it.

These two independent sets of scientific data prove that a properly designed compost facility will be protective of the water table with all categories of soil classified by the NRCS to effectively treat septic effluent. Given these facts, along with the data, the MNCC believes it is inappropriate to eliminate loam, silt loam, silt for siting a compost facility and that a five (5) foot soil separation is a very conservative distance for the protection of human health and the environment.

The language on line 13.5 – 13.17 of the draft rules allow the owner or operator to propose an alternative separation distance and soils subject to the approval of the Commissioner. The language addresses the separation distance but is silent on alternative soil types. The language is subjective and, without a specific permeability standard or soil specifications, will be left up to widely inconsistent and non-scientific interpretations by Agency staff.

Recommendation:

Maintain the 5 foot depth to the water table but include the soil types from the current 6 to the 9 soil type previously identified in MPCA 2nd Preliminary Draft Rule dated October 10, 2012.

Suggested Language:

Unless designed as allowed under subitem (9), the site must have at least

12.21 five feet of any combination of the following soil types comprising the soil profile above

12.22 the water table: loam, silt loam, silt, sandy clay loam, sandy clay, clay loam, silty clay loam, silty clay and clay.

12.23 An owner or operator may use an alternate separation distance according to unit (a). Water

12.24 tables classified as perched or epi-saturated by the United States Department of Agriculture,

12.25 Natural Resources Conservation Service, are not considered to be the seasonal high water

12.26 table. The soil profile must be characterized by the use of soil borings, piezometers, or test

13.1 pits as certified by a Minnesota-licensed soil scientist, ~~engineer, or geologist~~. The owner

13.2 or operator may propose the use of alternative methods for soil profiles according to unit

13.3 (b). If the site cannot meet the soil criteria, an impervious pad or liner must be installed

13.4 under all activity areas except curing and storage of finished compost.

Comment #9 – Rejects/Residuals

Current proposed language for 7035.2836 Subp. 11 B (4)

16.15 (4) All rejects and residuals must be stored to prevent nuisances such

16.16 as odors, vector intrusion, and aesthetic degradation. All rejects and residuals must be

16.17 managed to prevent the generation of contact water. All contact water from residuals and

16.18 residuals storage areas must be diverted to the contact water collection and treatment

16.19 system.

Comment: The effect of the above language is to require that rejects and residuals be screened and stored on a pad. This is an unnecessary and an expensive change to the rule. Residuals have met the PFRP process and consist of woody materials that may be marketed as is or reincorporated into the composting process for further particle size reduction. Rejects are rocks and/or plastic pieces. Neither residuals nor rejects pose little if any risk to human health or the environment.

Recommendation: Allow residuals to be stored off pad until reincorporated in to composting process or sold as is, and allow rejects to be stored off pad in a nuisance free manner for up to 30 days or until they are removed from the site.

Suggested language:

16.15 (4) All rejects ~~and residuals~~ must be stored to prevent nuisances such

16.16 as odors, vector intrusion, and aesthetic degradation. All rejects ~~and residuals~~ must be

16.17 managed to prevent the generation of contact water and must be removed from the site within 30 days. All contact water from residuals and

16.18 residuals storage areas must be diverted to the contact water collection and treatment system.

Comment #10 – Windrow Requirements

Current proposed language:

18.1 (a) The windrow method for reducing pathogens consists of an

18.2 unconfined composting process involving periodic aeration and mixing. Construction of

18.3 each windrow must include a minimum of 12 inches of porous materials at the base of the
18.4 windrow that promotes aerobic conditions within the windrow. Blended source-separated
18.5 organic materials may be placed on top of the porous material to a maximum height of 12
18.6 feet. Aerobic conditions must be maintained during the compost process. A temperature
18.7 of 55 degrees Celsius must be maintained in the windrow for at least 15 days. The
18.8 windrow must be turned at least once every three to five days.

Comments: The MNCC believes that the proposed language is too prescriptive and prevents the operator from operating in a manner that would achieve maximum PFRP. The USDA did extensive peer reviewed research on the “Process to Further reduce Pathogens (PFRP) and recommended the following for windrow systems:

“Using the windrow composting method, the temperature of the sewage sludge is maintained at 55 Degrees or higher for 15 days or longer. During the period when the compost is maintained at 55 degrees or higher, there shall be a minimum of five turnings of the windrow.”

You will notice two differences primary differences: 1) a porous layer at the base of the windrow is not required and 2) the turning requirement is not “...at least once every three to five days.”, but rather during the 15 day period the windrow “.. shall be a minimum of five turnings of the windrow.”

These two differences are significant because: 1) the most common materials to construct the “porous layer” would be wood chips and at times of the year these could be in short supply due to the demand by biomass burn plants that generate electricity, and 2) during cold weather (such as the weather this winter) turning a windrow as prescribed by the current language could cool the pile at inappropriate times and make it difficult to meet the PFRP.

Recommendation: The MNCC recommends the MPCA remove these two specific conditions and require that the operator describe in the operations plan how the operator will meet aerobic conditions within the windrows and under what conditions the operator will turn the windrows to meet the minimum of 5 turnings within the 15 day period at which the windrow must be at 55 degrees Celsius. Below is suggested language changes:

Suggested Language:

18.1 (a) *The windrow method for reducing pathogens consists of an*
18.2 *unconfined composting process involving periodic aeration and mixing. ~~Construction of~~*
~~18.3 each windrow must include a minimum of 12 inches of porous materials at the base of the~~
~~18.4 windrow that promotes aerobic conditions within the windrow. Blended source-separated~~
~~18.5 organic materials may be placed on top of the porous material to~~
18.3 To maintain aerobic conditions within the windrow, the windrow may not exceed a maximum height of 12
18.4 feet. Aerobic conditions must be maintained during the compost process. A temperature
18.5 of 55 degrees Celsius must be maintained in the windrow for at least 15 day and during that time the
18.6 windrow must be turned 3 to 5 times.~~The windrow must be turned at least once every three to five days.~~

Comment #11 – Additional Tier

Comment: State permitting rules can facilitate small-scale operators investing in expansion and diversity composting infrastructure. Several states have permit exemptions for composting certain types of materials under a specified amount. Some states’ regulations provide for several types of organic composting facilities, with each category requiring different levels of regulation. (E.g. yard waste only, yard waste with food waste, yard waste with manure, etc.) Regulation and permitting requirements become more stringent as the types or tonnages of organics material increases.

Please refer to attached article entitled “Supportive Rules for Small-Scale composting” article published in BioCycle Magazine’s June 2012 issue. According to the article, States have recognized the impacts of thresholds set too low for facilities that are well managed and have the ability to absorb more material. New York is currently discussing raising their allotted volumes from 1,000 to 5,000 yd³ of source separated organics. According to a state representative, there was no research to support the registration limits at the time it was decided, but after implementing the food scrap composting registration for a number of years, the division is comfortable in proposing a regulatory revision to increase permit registration amounts.

Another example is Wisconsin who allows small-scale compost site operations to have up to 5,000 yd³ of source-separated compostable materials at the site at any one time under a partial exception. These sites have performance standards that include: no adverse effects to the environment and reporting requirements but they are not required to have a pad or have any restriction on soil types within a five foot distance to the seasonal water table.

Throughout the US, states do not cite substantial problems with permit-exempt facilities abiding by their rules. As a result, states have or are considering reducing the regulatory restraints on compost facilities. Removing barriers by restricting feed stock types and increasing threshold for the permit-exemptions translate to more capacity to process source separated organic materials and increase participation in organics recovery programs.

Recommendation: Minnesota should follow Wisconsin’s lead and allow for intermediate sized SSOM facilities to accept up to 5,000 yards of SSOM at any one time with performance standards. A regulation and permitting system should be developed that increases regulatory controls as the types or tonnages of organic materials increase. The MNCC suggest the following:

- I. Backyard Composting (No MPCA permit or training required)
- II. Yard Waste (Permit by Rule)
- III. Small Site (Recommend increase to 100 yds³ annually or equivalent weight)
- IV. Residential Source Separated – up to 5,000 yds³ – prescriptive rules
- V. Large Scale - Commercial Source Separated (Other material as approved by MPCA)
- VI. Solid Waste

Contested Case Hearing Request

Finally, the MNCC would like to formally request a contested case hearing on the proposed amendment to the Compost Rule. The MNCC is opposed those sections identified in the comments above [MN Rule 7035.0300, Subp. 20a, 93b, 99a, 105a, 7035.2525, Subp. 2 A, 7035.2836, Subp. 8 C, 7035.2836, Subp.9 B (8), 7035.2836, Subp. 11 B (4), and 7035.2836, Subp. 11 B(10) (a)]. In addition the MNCC request that the Backyard compost definition and exemption issue raised in Comment #4 also be included in the contested case hearing.

The MNCC would like to thank the MPCA for the opportunity to comment on the proposed amendment to the Compost rule. We look forward to the opportunity to provide input on the draft rules at the contested case hearing on March 24, 2014.

Please let us know if we are able to assist the Agency in any other manner.

Sincerely;

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Attachments:

- 1.) Arboretum Pad Permeability Test – Braun Intertec Report – December 2013
- 2.) Effects of Septic Systems on Ground Water Quality – MPCA Study – May 1999
- 3.) Carver County Pilot Project – Final Grant Report – July 2008
- 4.) 2008 Annual Report – Carver County/RW Farms Demonstration Project – August 2009
- 5.) Carver County Demonstration Project – Final Grant Report - November 2012
- 6.) BioCycle – Supportive Rules for Small-Scale Composting – June 2012