Responsiveness Summary to February 2017 Stakeholder Comment Period on Draft Solid Waste Management Rules

All received comments have been organized, by section within their respective subchapters. Original comments are in black text, while the Secretary's responses are provided after the comment in red text.

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Subchapter 1 - Purpose

§6-104(A): Municipally owned facilities shall be exempt from payment of fees, rather than municipalities or districts. Stating that municipalities are exempt would be too broad, this section should be more specific to facilities. Casella proposes that this section be revised to read as follows.

> **Fees related to these rules are established in 3 V.S.A. 2822(j). Municipally owned facilities shall be exempt from the payment of fees in accordance with 3 V.S.A. §2822(j).**

The Secretary doesn't disagree with the concept of this comment, but the citation to statute is sufficient, as it states the municipalities shall be exempt from the payment of fees. Changing the word 'municipality' to 'municipally owned facility' does not change the intent of this condition and as 'municipality' is the language utilized within statute, no changes to the draft language has been made. The point of clarification that is made in section §6-104(B) of these draft rules explains the ownership structure that the Secretary considers to be a municipality or a municipally owned facility eligible for exemption from fee payment.

§6-104(A): Insert symbol sign before 2822(j).

Agreed and corrected.

§6-104(B): last sentence: "The contractor would not be vested in the financial viability of the facility." Vested probably has a particular legal meaning, so this may not be relevant, but I would argue that contractors have an interest in the financial viability of a facility. For example, the CSWD MRF is operated by Casella under contract, and the more successful the facility is, the more money Casella makes.

While a contractor may have an interest in the financial success of an operation, their interest is defined by the terms of their contract, they do not have an absolute right or title to the financial aspects of the operation and as such are not vested in the financial viability. No changes have been made.

§6-104 (B): Casella proposes that this section be removed. If a facility is owned by a municipality, it should be exempt from fees as the municipality has overall control of the facility. This would be consistent with our comments for §6-104 (A) above where municipally owned facilities would be exempt.

As stated in response to the comment on §6-104(A), the Secretary agrees that municipally owned facilities are exempt from the payment of fees; however, the Secretary disagrees that this section §6-104(B) should be removed as it provides clarification on what the Secretary considers to be a municipally owned facility. A facility constructed upon municipally owned land does not fit the consideration of a municipally owned facility and the Secretary believes that this section provides that clarification. No changes have been made.

§6-105: Casella would like to note that when the Federal Rules change, Vermont is also required to change as well.

Noted.

§6-106(A): Does this requirement apply to a hauler's mobile vehicle parked at the facility.

No, the intent was not to include the hauler as a co-applicant on the application. The Secretary does not consider the hauler to be an operator of the facility. However, the Secretary does not feel that there is

ambiguity in the language and no changes to the proposed rules.

Subchapter 2 – General Definitions and Acronyms

§6-201: Definitions

- *Adjoining residences and landowners* (A): What is a 'Department' – should this be Agency?

  Agreed and changed to 'Secretary' to be consistent with other proposed rule language.

- *Architectural waste*: This definition is proposed and should be underlined indicating consistent formatting. The program may want to consider changing "drywall" to " new drywall" as demolition-related drywall has limited acceptance and other potential concerns such as asbestos. Please see the revision below.

  "Architectural waste" means discarded new drywall, metal, asphalt shingles, clean wood, ~~and~~ plywood, or ~~and~~ oriented strand board derived from the construction or demolition of buildings orstructures.

  The definition proposed within these draft rules is derived from 10 V.S.A. §6605m as will remain as proposed in order to be consistent with the statute language. The sentence will be underlined to indicate that this is a new addition to these draft rules.

- *Architectural Waste:* Would it make sense to add "non-asbestos" to shingles and "unpainted/unstained" to plywood and OSB?

  The definition proposed within these draft rules is derived from 10 V.S.A. §6605m and will remain as proposed in order to be consistent with the language from statute.

- *Approved Uniform Solid Waste*: Why not just use the term "landfilled banned items" rather than try to list them? These terms are inconsistent with those used in Act 148, and the materials might change from time to time.

  Agreed, the definition for approved uniform solid waste has been changed to read: *means solid waste which has been determined in writing by the Secretary to be uniform, consistent and does not contain landfill banned materials as defined by State and/or Federal regulation*.

- *"Asbestos"* Asbestos is often grouped into two different types, friable and non-friable. Casella believes that this definition should include additional wording, or definitions to distinguish between the two types.

  The proposed rule language address asbestos containing waste and do not differentiate between friable and non-friable. As such, the Secretary does not see the need for additional wording or definitions to differentiate the two types as the management expectations are the same for each.

- *"Biosolids"*: 'applicable requirements: Whose requirements?

  The applicable requirements referenced are those outline within these rules, primarily in Subchapter 13. For clarify, this definition has been changed to read: '*….and has been shown to meet the applicable requirement of these rules for contaminant concentrations….*'

- *"Commercial Hauler":* This definition should also include recyclables and food waste, as commercial haulers are required to collect these materials in accordance with Act 148. Please see the suggested revision below.

  "Commercial Hauler" means any person who transports regulated quantities of hazardous waste and/or transports solid waste, recyclables and food waste for compensation ~~in a vehicle having a rated capacity of more than one ton~~.

  The definition of solid waste incorporates consideration of recyclables and food wastes. The definition will not be changed in order to remain inclusive of all solid wastes.

- *"Composite liner"* Casella believes that the "two-food layer" stated in this section was meant to read as a" two-foot layer". Please see the revision below.

  Noted and corrected.

- *"Construction and Demolition Waste"* Casella suggests to remove "furniture and mattresses" from this definition, as these materials do not originate from a construction or demolition, and should not be considered waste from construction and demolition. Casella also suggests the addition of " cardboard" as this material is often found in construction and demolition waste and cannot always be removed for recycling. DEC may also want to include "uncontaminated" if building debris is contaminated, such as contaminated soil. Please see our revision of this section below.

  "Construction and Demolition Waste" means waste derived from the construction or demolition of buildings, roadways or structures, including, ~~but not limited to~~, clean wood, treated or painted wood, plaster sheetrock, roofing paper and shingles, insulation, glass, stone, soil, flooring materials, brick, masonry, mortar, incidental metal and cardboard., ~~furniture and mattresses~~. This definition includes architectural waste. This ~~waste~~ definition *does not* include asbestos waste, regulated hazardous waste, hazardous waste generated by households, hazardous waste from conditionally exempt generators, or any material banned from landfill disposal under 10 V.S.A. §6621a.

  Cardboard is a landfill banned material and should be diverted for recycling and not included within construction and demolition wastes. Furniture and mattresses have historically been regarded as potential incidental materials from a construction and demolition projects. Due to the composition of these materials, primarily wood and metal, the Secretary believes that there is no reason for preventing their potential inclusion within construction and demolition wastes.

- *Construction and Demolition Waste*: Isn't Sheetrock a trademarked brand name? Perhaps use drywall as is used in the definition of architectural waste. Also wondering why "but not limited to" was deleted. There are C&D materials not listed, e.g., plastic and metal pipes, vinyl siding, carpet, empty plastic paint and mud buckets, etc. The last sentence says the definition does not include any material banned from landfill disposal under 10 V.S.A. §6621a. Clean wood is now included on that list.

  The correction of sheetrock to drywall has been made. The phrase 'but not limited to' has also been changed to remain within the definition for the reasons stated within the comment.

  Clean wood is part of construction and demolition waste. The inclusion of clean wood within this definition does not preclude management of this material as a landfill banned material.

- *"Custodial Care"*: "Custodial Care" means the continued management of the end-use obligations, particularly protection of the landfill cap and limiting access, following completion of the post-closure period. We have grave concerns regarding the term "continued management of the end-use obligations" in this definition. Continued management could be understood to mean perpetual custodial care. Perpetual care is unsustainable.

  Custodial care initiates at the cessation of post-closure regulatory activities at a closed landfill, it does not imply the cessation of management of the landfill. The regulatory activities are intended to determine potential or actual threat to human health and safety and/or the environment, which the management activities are intended to prevent such threats, and those management activities (institutional controls, vegetation management, stormwater management etc.) do not cease. The ownership of a landfill is assuming some perpetual liability for the site, and the associated de minimus site management activities. No changes have been made to the definition.

- *"Discarded":* (A): Is composting considered part of "recycling" definition? If not, composting should be added to this list of facilities.

  Composting is considered treatment (see definition in 6-201 of the Solid Waste Management Rules) and therefore is already included in item A. No changes have been made.

- *"Discarded":* (F): Add composting if it is not included in the definition of "recycling"

  Composting is considered treatment (see definition in 6-201 of the Solid Waste Management Rules) and therefore is already included in item F. No changes have been made.

- *" Diversion"* Casella proposes that the final sentence of this section be removed. Using materials as alternative daily cover should be considered diversion as these materials are being managed in a method other than disposal, as stated in the definition. When a contaminated soil, or other approved alternative daily cover material is used, it reduces the volume of native soil needed to fill this requirement for the landfill to protect the environment. Use of these ADC materials off-sets clean native soil to be managed in a landfill consuming valuable airspace. Incinerating solid waste to produce energy should also be considered diversion as this is not disposal, and the creation of energy should be considered an alternate beneficial use. Please see our revision below.

  "Diversion" means the management of solid wastes through methods other than disposal. Diversion includes, but may not be limited to: recycling, composting, reuse, and anaerobic energy production. ~~**Use of materials for alternative daily cover at laadfills or the incineration of solid waste to produce energy does not constitute diversion.**~~

  The Secretary disagrees, the definition of disposal within these proposed rules, as derived from 10 V.S.A. §6602(12) means the "discharge, deposit, injection, dumping, spilling, leaking, or placing of any solid waste or hazardous waste into or on any land….". Alternative daily cover more closely fits that definition. A policy decision has historically been made not to apply the franchise fee to this material, even though it is disposed of.

- *"Diversion":* Does this include tire-derived fuel?

  The incineration of solid waste to produce energy, including tire-derived fuel does not constitute

diversion. No changes have been made.

- *"Floodway"*: Shouldn't the last sentence be deleted since it is included in what was added?

  Agreed and corrected.

- *"Final Cap"* In this section, the "Program" should be replaced with "Secretary", and these regulations should be consistent with how it references the Agency. Please see our revision below.

  "Final Cap" means an engineered layer of materials approved by the Secretary ~~Program~~ placed on the surface of a landfill where no additional waste will be deposited. Final cap shall meet the minimum requirements of these rules and achieve the performance criteria of minimizing infiltration and controlling landfill gas emissions.

  Noted and corrected.

- *"Food Residual"*: Why are residuals from animal slaughtering and rendering excluded?

  Small composters are prohibited from accepting these residuals from animal slaughtering and rendering. It is the Secretary's opinion that these materials require a higher degree of management than typical food residuals and therefore isolates these materials from the generalized term food residuals to allow for this distinction.

- *"Food residual":* Using the term "residuals" contradicts the definition for " residual waste" on DEC's website.

  The Secretary disagrees that this is contradictory or a point of confusion. Language on 'food residuals' is used in specific contexts which clarify the meaning, as is the general term 'residual waste'. Furthermore, the term 'food residual' derives from statutory language and these rules aim to be consistent with statute, no changes have been made.

- *"Growth Capacity":* DEC should consider revising this definition for clarity, or simply use the phrase "permitted design capacity". Please see the suggested change below.

  "Growth Capacity" means the volume of materials that a facility's designed infrastructure is capable of handling. Certifications will be issued with a ~~written~~ growth capacity amounts and this volume may be different (greater) than the actual volumes of material managed at the facility but must be less than the design capacity.

  Growth capacity is intended to reflect the permitted design capacity, not to be less than design capacity. This definition has been changed to the term permitted design capacity and this term is used throughout rule for clarity.

- *"Implementation Plan"* We believe that DEC should elaborate on what is required by this plan, and who the responsible parties are.

  Subchapter 4 addresses what is required by these plans and who responsible parties are. The Secretary does not feel that this is appropriate for inclusion within the definition. However, the definition has been adjusted for clarity.

- *"Implemented Waste" W*e do not believe that it is necessary to have an additional definition for implemented waste, as it should simply fall under what is required for Solid Waste Implementation Plans. Having the additional definition only causes unnecessary administrative work.

  Noted, but no changes have been made, the Secretary feels that retaining the definition provides clarity for persons who may not be familiar with the solid waste implementation plan and implications of that process.

- *"Insignificant Waste Management Event":* add collection

  Agreed and corrected.

- *"Leachate":* 'removed from waste' What does 'removed' mean?

  This has been rewritten for clarity to read that the materials or products contained within the leachate are *derived* from the waste, rather than removed.

- *" Leaf and Yard Residuals":* means source separated. compostable untreated vegetative matter, including grass clippings. leaves. kraft paper bags. and brush. which is free from non-compostable materials. It does not include such materials as pre- and post-consumer food residuals. food processing residuals. or soiled paper.

  The Secretary does not feel that this is contradictory. Language on 'food residuals' is used in specific contexts which clarify the meaning as is the general term 'residual waste'.

- *"Mandated Recyclables"*: Why does the definition specify "source separated"? Are they not mandated recyclables whether they are separated or not? I see that this is drawn from the definition in statute.

  The definition proposed within these draft rules is derived from 10 V.S.A. §6602(29) and will remain as proposed in order to be consistent with the language from statute.

- *" Nuisance":* Using the term " residuals" contradicts the definition for " residual waste" on DEC's website.

  No comment was received related to the nuisance definition. No changes were made at this point, but will be considered if clarification is provided.

- *"Organics and Organics Recycling Facility":* move to after open burning

  Agreed and corrected.

- *"Organics Recycling Facility":* In this definition, the term 'processed' should be added, as seem below. We are not certain that the terms 'treated' and ' processed' are completely synonymous, with 'treated' having connotations related to environmental quality and ' processed' having material handling implications.

  "Organics Recycling Facility" (ORF) means a facility where organic materials are collected, treated, processed and/or stored in preparation for transfer to an anaerobic digester or compost operation.

See the definition of treatment contained within these proposed rules. Treatment includes processing and this addition will not be made. However, the suggestion for the inclusion of and/or to broaden the activities allowed at a ORF.

- *"Operating Capacity":* Casella believes that the final sentence of this definition should be removed, as all facilities should be subject to fees for the volume of materials received, including municipally owned facilities. Please see our revision below.

> **"Operating Capacity" means the volume of material that a facility is limited to managing consistent with the volume of materials for which fees have been paid within the operational year. ~~This applies only to private facilities.~~**

The differentiation of operating and growth (permitted design capacity) only applies to the payment of fees, which are not applicable to municipalities. This sentence has been adjusted to reflect that this is related to the payment of fees and not solely private ownership. The last sentence of the definition now reads: "This applies only to facilities required to pay application fees."

- *" Processed Construction and Demolition Debris":* DEC should consider removing the word "all" from this section, as in the revision below. It is not always possible to guarantee that all hazardous and recyclable materials have been removed from a waste stream, although the vast majority of those materials can be removed. This would revision would ensure that those materials are removed to the best of the disposal facility's ability, while also giving some flexibility if any materials were unknowingly disposed of.

> **"Processed Construction and Demolition Debris" is construction and demolition debris which have had ~~all~~ hazardous and recyclable materials removed, and which consists of materials with little or no economic value which may be disposed of.**

Noted, but not changed. Hazardous and recyclable materials are not intended for disposal and the Secretary must require their separation from disposed materials.

- *"Processed Glass Aggregate":* Casella believes that this definition should also address beneficial use, as those standards could vary depending on the type of use. Please see the revision below.

> **"Processed Glass Aggregate" means the mixed glass cullet produced from crushed and screened clean food and beverage containers. PGA shall contain no hazardous waste and no more than 5% contamination by weight from china dishes, ceramics, or plate glass; or 1% contamination by weight from screw tops, plastic rings, paper or labels. PGA must be crushed and screened such that 95% of the material passes a 25.0 mm screen and not more than 3% of the material that passes through the 4.75 mm sieve passes the 75 µm sieve or as otherwise accepted in a beneficial use application.**

Processed Glass Aggregate is only referenced within these rules for exemptions when used for specific management activities. Nothing prevents an acceptable use application and determination for another beneficial use of crushed glass when that glass and management activity may require specifications other than those included within this proposed definition.

- *"Processed Glass Aggregate"*: This definition is too specific regarding the type of contamination (screw tops,

plastic rings, paper or labels). In reality contamination is a broader scope of materials. Consider less specific materials and using general categories to describe contamination such as plastic, wood, paper, metal and other foreign objects.

For clarification, the definition has been changed to read: *means the mixed glass cullet produced from crushed and screened clean food and beverage containers. PGA shall contain no hazardous waste and no more than 5% contamination by weight from china dishes, ceramics, or plate glass; or 1% contamination by weight from plastics, papers or other objectionable materials. PGA must be crushed and screened such that 95% of the material passes a 25.0 mm screen and not more than 3% of the material that passes through the 4.75 mm sieve passes the 75 µm sieve.*

- *"Processed Recyclable"*: Does this refer to the marketable product or the residuals that may go to a landfill?

  This does refer to the marketable product. The residue remaining after processing is not *recyclable* and so is not considered within this definition.

- *"Qualified Operator":* DEC should provide some clarification on what is intended by "operator training". Is this a course, or certification that can be obtained by an operator?

  Operator training should be addressed within the operator training plan for each facility and submitted with an application for approval by the Secretary. A qualified operator should meet the standards of the approved plan.

- *"Recyclable Materials":* Glass as full or cushion aggregate would not meet this requirement. DEC may want to revise this definition.

  Noted, but no corrections made. The use of glass as an aggregate would fit the definition of reuse. When crushed glass fits the requirements of processed glass aggregate (PGA), as listed in the exemption section of these rules, it would not be considered a solid waste.

- *"Recycle":* We believe that sorted materials to create products should include fuel products such as pellets and fuel blends, and should be considered recyclable materials. This definition should also address alternative daily cover. Please see our proposed revision below.

  "Recycle" means the process of ~~utilizing~~ sorting/separating- reclaiming and/or processing materials from solid waste materials to produce new ~~for the production of raw~~ material or products, but shall not include ~~processing~~ incineration of solid waste to produce energy ~~or fuel products.~~

  The Secretary does not agree that pellets and fuel blends should be considered recycling. Similarly, the use of materials for alternative daily cover is not considered diversion. The definition has not been changed.

- *"Recycle"*: 'or fuel products' is stricken as a forbidden use. Does this mean that mandated recyclable plastics, for instance, could go for fuel generation?

  Upon internal discuss the purpose of the strike-through of 'or fuel products' was unclear and problematic as this comment indicates. This definition now reads: *"Recycle" means the process of ~~utilizing~~ reclaiming and/or processing solid waste materials to produce new ~~for the production of raw~~ materials or products, but shall not include ~~processing~~ incineration of solid waste to produce energy or, fuel products.*

- Casella believes that DEC should include a definition for Residual Waste in this section. The Agency's website includes a pseudo-definition for Residual Waste; DEC also uses the term "residual" as part of the definitions for "leaf and yard residuals" and "food residuals". This can cause some confusion on what is intended by these types of waste.

  Residual waste is the semi-solid material that is produced as a byproduct of the treatment of industrial or municipal wastewater. This includes wastewater sludges, septage, short paper fiber, wood ashes and sludges generated during food processing.

  The residuals waste portion of the solid waste rules will be being removed during a dedicated residuals waste rule making process in the near future. The Secretary intends to make as many of these changes as possible in the residual waste management rules that will be developed. This should alleviate any confusion over the use of the term residuals.

- *"Reuse":* DEC should consider changing the word "recycles" to "recycled" for improved readability, or consider using a different word in this definition.

  Agreed and changed.

- *"Sanitary Landfill or Landfill"*: This industry term does not necessarily include a lined landfill, so I suggest adding the definition of a "lined landfill" to this document. The term "sanitary landfill' has been used long before lined landfills came along

  These rules refer to both lined and unlined landfills. The generic definition of landfill as proposed will remain and the context or additional language within the rule will provide the clarification as to whether unlined, lined or both types of landfills are being considered. Although the term sanitary landfill is not frequently used, definitions within statute (10 V.S.A. §6602) still utilize this term and the Secretary feels it should remain within these proposed rules for consistency with statutory language.

- *"Untreated Wood":* DEC may want to consider revising this to read as below, this section should not be referencing itself.

  (C) sawdust produced solely by the primary processing of the acceptable materials listed (A & B~~,~~ ~~C~~) in this definition:

  Agreed and changed.

§6-201 Definitions In several sections throughout the proposed regulations, Subchapters have a separate section for definitions, specific to said subchapter. These sections include §6-401, §6-1102, and §6-1104. Casella suggests that those sections are removed, and those definitions are relocated to §6-201, so that all definitions are found in the same location. This will improve the use of the regulations for the reader, and will prevent confusion.

The isolation of these definitions was intended for ease of use by the users of these subchapters. The subchapters which contain definitions sections are: Waste Management Plans, Compost Facilities and Regulated Medical Waste. The Secretary feels that the definitions included within each of these subchapters are specific enough to the material within the subchapter and that the users of these subchapters will best be served by isolating their specific information. Additionally, the length of the definitions specific to composing facilities and to regulated medical waste management activities is sufficient to justify consolidation.

§6-201: Additional definitions: clean wood; food scrap recovery (means pre-consumer food scraps that are recovered for use as animal feed or for human consumption.); lined landfill;

Clean wood has been added and has a proposed definition of: *means untreated and unpainted wood including dimensional lumber, and other natural woody debris. Includes trees, tree stumps, brush and limbs (≥ 1 inch in diameter), root mats, and logs.*

The term food scrap recovery is not used within these rules and as such has not been included as a definition. As described above for the response to sanitary landfill, a definition of lined landfill will not be included within these proposed rules.

§6-202: Acronyms Casella is proposing a list of acronyms to be added to this section and believe that the use of their acronyms would benefit the regulations.

AW -Architectural Waste
BUD - Beneficial Use Determination
C&D - Construction and Demolition Waste
TCLP - Toxicity Characteristic Leaching Procedure
MSDS - Material Safety Data Sheet be changed to SDS - Safety Data Sheet, to be consistent with language instated by OSHA.

Noted and added. The term beneficial use determination was changed to acceptable use determination to reflect the typically used Vermont language. The appropriate acronyms have also been added to each appropriate definition.

§6-202: Additional Acronyms: C&D, MSW, PET, SWIP

C&D, MSW, PET and SWIP have been added.

Subchapter 3 – Applicability, Exemptions, and Prohibitions

§6-301: DEC should clarify the difference between a Waste Management Plan and a Facility Management Plan.

The Secretary does not agree that this is a point of confusion. Waste management plans are identified in detail within Subchapter 4 and requirements for facility management plans are outlined in detail within §6-503. The use of these plans applies to different scenarios and the context should make it clear which plan type applies.

§6-301: This section should acknowledge retail take back programs that are either providing a service for their customers and sell that material such as mattresses, tires and appliances or they are participating in an EPR program and sell the product such as paint, mercury bulbs or electronics. These retail programs should be included in the exemptions with perhaps a condition that they meet any guidance that ANR has on collecting that specific material**.** Consideration should be given as to whether ANR wants to receive diversion data for that material.

The Secretary agrees that there would be benefit to the acknowledgement of EPR programs within the applicability section of these rules. The following language has been added: *"Extended Producer Responsibility (EPR) legislation specifies end-of-life management requirements for specified materials that are of particular environmental concern. These EPR laws are defined within statute and may specify collection and management requirements for these materials types. Solid waste collected under these EPR programs are not subject to these rules, provided they are managed in accordance with applicable statutory requirements."*

§6-302: RMI would like to see the Comprehensive Short Paper Fiber Management Procedure December 23, 2009 to be included as an exemption, or referenced as the regulatory framework for this material.

The SPF Procedure will be converted into rule in the residual waste management rules that will be developed, but will not be incorporated into this version of the Solid Waste Management Rules.

§6-302 (A)(1): The disposal of these materials without guidelines opens this up to potential concerns and non-compliance. DEC should provide additional regulations for these materials.

The Secretary disagrees as the historic implementation of this practice has not proved problematic. The guidelines of 'unpainted' and 'contaminant-free' have been sufficient for identifying non-compliance.

§6-302 (A)(4): We believe that 50 tons/year is too high for an annual limit, this would represent nearly 1ton per week. This value should be a smaller amount, such as 1 to 5 tons per year. We also believe that the term "mandated recyclables", which is a defined term, should be used in this section, as stated in the revision below.

Recycling facilities which accept, aggregate, store and/or process less than 50-fifty tons of mandated recyclable materials per year.

Noted, but no alterations made. Recycling facilities are not limited only to mandated recyclables, though these are often the managed materials. The maximum management amount of fifty (50) tons per year has also proven to be a reasonable amount in practice.

§6-302 (A)(5): Wouldn't the approved " treatment or process" be pre-determined as part of the "certified waste management facility" permitting? DEC should clarify, or better state the intent.

The exemption has been altered for clarification. The intent of this requirement was for the

determination that the product following solid waste treatment/processing poses no threat, not the solid waste itself prior to treatment. This exemption now reads: "The product of solid waste that has been treated or processed in a certified waste management facility provided that the applicant demonstrates to the satisfaction of the Secretary that after treatment or processing, the product ~~solid waste~~ poses no threat to the environment, public health and public safety, and does not create a nuisance."

§6-302 (A)(6): This regulation appears to be very specific, with not many of these facilities in existence.

Noted; however, this exemption applies to numerous generators (business consortium's such as malls etc.) and has not been changed.

§6-302(A)(6)(i): Would "associated" facilities include, for example, all of the businesses in a mall or business park? I thought that is why this rule was originally added. Also, these sites may have more than one consolidation point. Should the sentence start with "the solid waste generator or consortium of generators" as stated in the preceding sentence?

Agreed and corrected.

§6-302(A)(7)(i): Casella proposes the following addition to this section. This would help prevent unqualified equipment being used for this purpose.

i. **the vehicle or trailer is registered and inspected as required by its registered State of origin and/or any local ordinance such as Town or SWME registrations ~~the Agency of Transportation~~;.**

The Secretary agrees with the proposed addition of the registration being required from the state of origin and has made this suggested change. Additional language changes have been made to this exemption for the sake of clarity. However, the Secretary disagrees with the addition of 'or any local ordinance such as town or SWME registrations. The Secretary does not enforce local ordinances or require compliance with such ordinances within these rules.

§6-302 (A)(7)(iv): Casella proposes that DEC add another roman numeral in this section prohibiting materials from touching the ground during mobile solid waste operations. This would aid in protecting the environment, and human health and safety, and would ensure that the solid waste collection operation is operating efficiently. See the insertion below.

iv. Materials should at no time touch the ground in these mobile solid waste operations.

§6-302(A)(7)(ii) controls the release of solid waste and related liquids to either the ground or the environment. The Secretary does not believe that an additional requirement for waste not to touch the ground is needed to provide these environmental health and safety protections.

§6-302(A)(8)(ii): Casella believes that these volume limits are too large for how much these operations can accept daily and could potentially reduce the need for permitted transfer facilities' services. Mobile operations are intended to offer drop-offs for residential customers without a nearby transfer facility, not for commercial applications. Any expansion in this section would require more oversight which would increase the cost.

There is no proposed expansion associated with this section from the current 2012 rules. No specific issues have arisen or are identified with transfer operations at this capacity. No changes have been made.

§6-302(A)(13): DEC should provide some flexibility for any changes in the procedure, please see the revision below.

> **Wood ash managed in accordance with the 2009 Agency's "Comprehensive Wood Ash Management Procedure" or an updated version.**
>
> Agreed and corrected.

§6-302(A)(13): We support retaining and referencing the Procedure for wood ash management, rather than adding anything further to these regulations. Wood ash is a safe, valuable product that does not require much regulation.

> Noted, and not changes necessary.

§6-302(A)(14)(vi): We believe if PGA can be used as common backfill outside a solid waste disposal facility, it could be used as landfill cover or road base to offset the need for a natural material. We propose to revise the reference to simply "Landfill cover".

> The use of crushed glass could be approved for other acceptable uses than those defined by these exemptions and meeting the processed glass aggregate (PGA) physical properties requirements. The Secretary does not agree that use of PGA, meeting the specified physical properties, should be used for landfill cover and exempt.

§6-302 (A)(15)(xii): This material may contain herbicides and pesticides. How will DEC define "heavily bedded"?

> The Secretary acknowledges that there is potential herbicides and pesticides within this material, but has not changed the acceptable use of this material as a high-carbon bulking agent. A carbon to nitrogen ration has been included within this bedding material to clarify what the Secretary will accept as heavily-bedded. The suggested C:N ratio is 22-50 : 1.

§6-302(A)(15)(xiii): DEC should consider revising this section, as stated below, to be consistent with using "the Secretary" in place of the "Solid Waste Management Program".

> **Paper or paper products, as approved by the Secretary ~~Solid waste Management Program.~~**
>
> Agreed and corrected.

§6-304(F): Remove the words "with the exception of household hazardous waste". By definition household hazardous waste is not a hazardous waste and therefore would be exempt. Some materials that are HHW are banned from landfill disposal. The language is unnecessary and contradictory in some cases. Consider banning HHW from disposal.

> Although the Secretary agrees that the definition of household hazardous waste would provide the exemption; however, to prevent confusion for those who may not reference the household hazardous waste definition, the language will remain. This does not allow for the disposal of landfill banned items.

§6-304(G-H): We also believe that the citation for the law in section (G) should not be removed, it serves as a reference for the reader.

For each of these sections, we believe that there should be a distinction between intent to dispose of these materials and unintentional disposal. Please see our suggested revision below.

> **G. Intended Disposal of wastes listed in 10 V.S.A. §6621a which are designated by law to be prohibited to be disposed of in a discrete disposal landfill facility.**

H. Intended Disposal of regulated medical waste (RMW) which does not comply with the provisions of Subchapter 14 of this ~~these~~ rules.

The language has been changed to reflect statute with the addition of knowing rather than intended to §6-304(G). The statutory reference has been retained.

Subchapter 4 – Waste Management Plans

§6-403(A): While it is understood that this language is being incorporated into the Rules from Act 78, Casella does not support mandating how towns manage their solid waste and recycling as this will result in an increased cost of disposal. We propose that this section either be removed, or that DEC should revise this section to clarify on what is meant by the term "participate". There should be some flexibility for municipalities to comply and meet requirements without the mandate to be involved with a district or regional commission.

As this was a point of confusion, this condition has been changed to better reflect the Secretary's interpretation of the statutory language as written and now reads: *"Each municipality shall be a member of a district, alliance, or act independently as a Solid Waste Management Entity (SWME), which has a Solid Waste Implementation Plan (SWIP) approved by the Secretary. A municipality that does not join or participate as provided by this section shall not be eligible for State funds to plan and construct solid waste facilities, and shall not use facilities certified by the State of Vermont for use by the region or the solid waste management district."*

§6-403(A): "shall not use facilities certified for use….': should read "…facilities certified by the State of Vermont?"

Agreed and corrected.

§6-403(B): We disagree that SWMEs should be mandated to submit copies of regional plans to the Secretary. SWMEs should have to conform to state standards and not SWM district or regional standards if they are not members. Please see our revision below.

SWMEs shall submit for the Secretary's review and approval a solid waste implementation plan that conforms to the materials management plan adopted by the Secretary pursuant to 10 V.S.A. § 6604. ~~and any regional plan adopted pursuant to title 24, chapter 117 of the Vermont Statutes Annotated~~. Solid waste implementation plans shall be reviewed by the Secretary in accordance with§ 6-403 of this subchapter.

The requirement that a solid waste implementation plan be in conformance with an adopted regional plan is provided for within 24 V.S.A. §2202a(c)(2), these rules cannot contradict statute and as such, no changes have been made.

§6-404(B)(1): "solid waste" should be deleted from the sentence.

Agreed and corrected.

§6-404(B)(3): We believe this section should be modified, as SWMEs would not be changing the plan without a specified reason, and having been reviewed by the Secretary, such as a renewal.

Upon plan renewals ~~the Secretary's determination that changes made to a solid waste management implementation plan, including any amendments or modifications, require review of the plan's conformance to the materials management plan or the requirements of these rules.~~

Renewals may not be the only occasion to significantly revise a solid waste implementation plan. Within a SWIP approval period changes within the membership, or solid waste facility types of the SWME region, or inclusion of additional siting restrictions, may require adjustments to the SWIP. At the Secretaries determination, some of these changes may be

significant enough to require review of conformation to the MMP and the solid waste rules

§6-404(C): We do not think it is appropriate for the Agency to develop performance standards without a public process. We recommend that DEC either remove this section, or add in a public comment period.

The performance standards that solid waste implementation plan submittals will be reviewed by are established by the materials management plan, which does go through a public process. To clarify this, this section has been removed and additional language has been added to §6-403 for clarification.

§6-404(D): Please see the following edits to this section that we have made to improve continuity with the rest of the regulations.

Plan Review; ~~pre-approval~~. Upon a finding that a solid waste implementation plan complies with the performance standards established under subsection (B~~b~~) of this section, the Secretary shall issue a written pre-approval of the plan to the SWME. If a **plan does not comply with one or more of the materials management plan ~~performance standards~~, the Secretary shall issue written notification to the SWME indicating that the plan is not approved and identifying the deficiencies of the plan. ~~Pre-~~ Final approval shall not be issued until all deficiencies are fully addressed.**

Clarification has been provided in §6-403 to indicate that performance standards for solid waste implementation plan review and conformance are established within the materials management plan. No changes have been made to §6-404(D) at this time.

§6-404(E): We believe that additional hearings are not necessary at the SWME level. Rather, the Secretary should hold the required number of public meetings around the State to provide a more comprehensive perspective of why the States Material Management Plan requires change, and hence a change required to the SWME SWIP. To require each SWME to perform this task is very costly and burdensome on the SWME.

The public process associated with SWIP approval is directed by statute. As the SWME is tasked with creating and implementing the SWIP, it is important that they directly have feedback and direct conversations with their constituents. The Secretary does hold public meetings for the Materials Management Plan, but the SWIP public process is intended to focus more directly on the actionable items that the SWME will be implementing throughout the SWIP period. No changes have been made.

§6-404(E): I thought that two public hearings, instead of one, were only required by statute if the amendment dealt with hazardous waste.

Language on the public notice requirements has been added to §6-404(D) to clarify that the holding of two public hearings is only required if the plan or plan amendment addresses household hazardous waste management, otherwise the requirements of these rules apply (only a single public hearing).

§6-404(F)(1-3): We believe that this section should be simplified, as follows;

~~1.~~ The SWME shall submit the solid waste implementation plan after the plan conforms to the performance standards of the MMP; and has been signed by the

appropriate official such as the selectboard or board of directors. ~~or amendment for final review and approval. The final submission shall identify changes made to the plan or the amendment, including any changes made~~ in response to the Secretary's determination under subsection (D) of ~~t~~section.

~~2. The Secretary shall approve the solid waste implementation plan, including any amendments or changes thereto, upon making a determination that:~~

~~1. The plan adequately addresses and conforms to the performance standards of the existing materials management plan; and~~

~~11. The public notice requirements of 24 V.S.A. §2202(a) and this subchapter have been satisfied~~

~~3. The Secretary may impose conditions on a determination of approval in order to make the findings identified in subdivision (F)(2) of this subsection.~~

This section addresses the process of obtaining state approval of the SWIP by the SWME and the determinations that the Secretary must make in order to grant approval. The proposed changes alter the intent such that the requirement only addresses when a SWME must submit, but doesn't provide guidance on what the Secretary will be reviewing. For clarification, the more descriptive language on the process of review is being retained. No changes have been made.

§6-404(J):

Casella believes that this section should be removed, as this has already been covered by §6-404 F. above.

Subchapter 5 – General Application Submittal Requirements

§6-501 (B)

Casella believes that DEC should insert additional numbers in this section for pyrolosis and incinerators as these are emerging technologies that should require a full certification.

Noted, and agreed. Approval of a solid waste implementation plan or amendment by the Secretary constitutes approval of any criteria identified within that plan, not just siting criteria. This condition has been removed.

§6-501(C)(3): Casella believes that IWMEAs should not be required under a minor certification, a registration would be more suitable.

Noted, but the statutory requirements of 10 V.S.A. Chapter 170 are reflected by this subchapter, including this provision.

§6-501(D): We believe that DEC should provide some clarification on the difference between registered facilities and permitted facilities, and what types of activities and facilities fall under which requirement.

Registrations and emergency approvals will be processed in the same manner. The listing of items 1-3 under this subsection as registrations and item 4 as an emergency approval provides sufficient clarification. Only these four activities/issuances are eligible for registration or emergency approval.

§6-501(F): Casella proposes that DEC remove this section in its entirety. This is too ambiguous and could deviate greatly from otherwise standard procedure.

Noted, but the Secretary disagrees and is retaining the measure. This language and provision is provided for within statute 10 V.S.A. 170 §7703(B)(1).

§6-502(A): Does a mobile vehicle parked at the site have to be a co-applicant?

No, the hauler would not be a co-applicant as the Secretary does not regard the hauler as a facility operator. No changes have been made.

§6-503(E)(4): Casella believes that DEC should provide some flexibility on the application fee, particularly in the instance of renewals in which applications fees have already been submitted. Please see our revision below.

The applicable application fee, or evidence that the prior year application fee has been paid as specified in 3 V.S.A. chapter 51, subchapter 2 §2822(j).

The Secretary acknowledges that these rules need to address the flexibility which is currently being implemented; however, disagrees with the changes proposed. The rule language has been clarified to provide for payment of both application fees, which apply to IWMEAS, categorical disposal facilities, large composting facilities etc. and operational capacity fees which apply to full certification facilities. Operational capacity fees are due upon issuance of a certification and shall be paid annually. Throughout the year, amendments to a certification can be made to adjust for additional operating capacity, with additional fees paid upon issuance of that amendment. At the time of recertification, any issued certification should be written such that the operating capacity is calculated from the end of the existing certification, and there should be no loss of paid fees.

§6-503(E)(5): *Evidence of ownership of facility or property: This shall include a copy of a fee simple title to the property or a lease agreement consistent with §6-502(A)(2). This requirement does not apply to diffuse disposal facilities.*

We believe that DEC should clarify why this requirement does not apply to diffuse disposal facilities.

The Secretary intends to make as many of these changes as possible in the residual waste management rules that will be developed.

§6-503(E)(8): We believe that the requirement for operating capacity should be removed from this section, as in the revision below. The growth capacity would be sufficient as it is the worst case.

A facility management plan (FMP), which includes demonstration that the siting, design and operational information for the facility is sufficient to demonstrate compliance with the standards and requirements of these Rules. The FMP must address all operational units and wastes to be managed at the facility along with providing the basis for the ~~operating capacity and~~ growth capacity planned for the facility. At a minimum the FMP must address:

The operational capacity would reflect the minimum requirement (staffing, equipment etc.) that a facility would be responsible for having available. This information is valuable to the Solid Waste Management Program to ensure sufficient capacity for appropriate management. No changes have been made.

§6-503(E)(9): This requirement could be extremely problematic for a facility if a solid waste district decides to remove acknowledgement from their plan of one of our facilities. Then we would not be able to re-permit the facility. Casella suggests that this section be removed.

Noted, but no changes have been made. This is currently requirement for inclusion within a Solid Waste Implementation Plan derives from statute 10 V.S.A. §6605(c).

§6-503(E)(10): All solid waste facilities? MRFs, town drop-offs, transfer stations, small compost facilities etc.?

Yes, by statutory requirement this applies to all solid waste facilities.

§6-503(E)(12): We believe that DEC should revise this section to allow some flexibility in the language on what materials are expected to be managed at the facility, as in the revision below.

A listing of the types and amounts of materials that is expected to ~~will~~ be managed at the facility during the certification period.

The application will be used to develop the permit. The permit will reflect the materials that will be allowed for management by the permit. It remains the discretion of the facility to manage optional materials (not mandated) from this listing or to manage materials at amounts lower than the permitted amounts. Therefore, the application should contain the amounts that will be managed as they reflect the amounts that will be permitted for management. No changes have been made.

§6-503 (E)(13)-(14): The plans required by this section are already included in the FMP, Casella suggests that these two sections be listed as a subset of §6-503 (E)(8) above.

The Secretary agrees that the contingency action plan can be incorporated into the facility management plan. The language for this plan has been moved as suggested. However, the

operator training plan is separate from the facility management plan. While the facility management plan may state that a trained operator will be on site, the actual training of the operator may have components that occur outside of regular facility operations. This plan is being retained as a separate submittal.

§6-504 Minor Application Submissions

Casella suggests that DEC add an introductory paragraph before section A, that would explain the difference between minor and full certification, and who would qualify.

That information is located in §6-501 – Applicability. The Secretary feels that this consolidated section is sufficient and the information does not need to be repeated in §6-504, no changes have been made.

§6-504(A)(1&5): These appear to say the same thing.

Agreed and corrected, §6-504(A)(5) will remain.

§6-504(A)(1)(vi): I may have missed it, but for categorical certifications, a letter from the SWME saying the facility is consistent with their SWIP is required. I did not see that for a full certification.

This requirement is provided for a full certification application submittal under §6-503(E)(9). No changes have been made.

§6-504(A)(3): Requiring notification of abutting property owners and a public comment period for IWMEAs is onerous and unnecessary. This requirement puts a considerable amount of additional time for permit applicants and the State to permit one-day events. These permits are required every year for the same HHW collection event in the same location. We have 10 of these events every year at the same locations as the previous year. Abutting property owners have never expressed concern and if they did we would move the event the following year. The Secretary could also deny the permit if the location had a history of problems. To require notification every year is not practical. In addition, under section §6-602 A, the time it takes for the public comment period and the approval process for a simple event now seems very lengthy (14-day review for completeness and 14-day public comment period after technical review). If the public comments, the process could drag out further and potentially beyond the event date. This is not reasonable for a simple one-day collection.

Noted, but the statutory requirements of 10 V.S.A. Chapter 170 are reflected by this subchapter, including this provision for public noticing of IWMEA applications/permits. However, the Secretary acknowledges that application for a HHW collection event may better fit the requirements and goals of a registration as opposed to an IWMEA application. These draft rules are currently being redrafted to reflect collection events applying through a registration process, with only a notice of decision being posted, in order to stream-line the process.

§6-504(B)(1): Historically, facilities that have obtained a solid waste certification have not been required to submit an IWMEA to DEC for HHW events, has this changed? Will they be required to submit an IWMEA going forward? Casella has also proposed the following revisions, for better readability of this section.

An IWMEA allows ~~provides for a person may to engage in a~~ waste disposal, storage, treatment or processing event of limited duration that will not result in a threat to the public health and safety or to the environment, and will not create a nuisance, without having received a Solid Waste Certification.

HHW events held at certified solid waste facilities approved for managing these materials/events

within their permit are not required to submit a separate application for an IWMEA. However, an IWMEA is an approval to perform an activity, and the suggestion to include 'without having received a solid waste certification' has not been included. The incorporation of 'allows' in lieu of 'provides for…' has been included within these revisions and an additional note has been included within §6-504(B)(3) that reads *'Note: Certified solid waste facilities that have provisions for holding collection events included within the issued certification do not need to obtain a separate IWMEA approval if the event is held in compliance with that certification.'*.

§6-504(B)(2)(i)(f): What does "sanitary wastes" mean? Needs a definition.

A definition has been added: *"Sanitary Waste" means any non-hazardous or non-radioactive solid waste materials.'*

§6-504(B)(2)(i)(a): Casella proposes the addition of "land clearing debris" to the end of this section, as this should be eligible under an IWMEA.

Land clearing debris is too generalized and the Secretary cannot identify additional solid waste materials that would not be included within listed materials, but could be considered land clearing debris. If there are specific materials types that were intended by the language 'land clearing debris' please propose those materials for consideration.

§6-504(B)(3): Casella suggests some clarification that the completed form is an application, as in the revision below.

In order to obtain written approval for an insignificant waste management event, applicants must submit ~~a written request~~ a properly completed application on a form provided by the Secretary ~~which, at a minimum, addresses the following items~~:

Agreed and corrected.

§6-506(D): We believe that the second use of the term "data" should be replaced with "date" in this section.

Agreed. Additionally, for clarity the first sentence has been changed to read: "Applicants shall maintain all records, data and supplemental information used to complete…."

Subchapter 6 – Application Review and Certification Issuance

§6-601 Full Certification Review Process: Casella recommends that DEC add a requirement in this section to keep all records for 10 years. This would match what is required in the Minor Certification and Variance sections.

No changes made. §6-601-604 all address the review process for full, minor and variance applications respectively. §6-605 requires 10 years of document retention for *all* application materials, regardless of application type, including full certifications.

§6-601(A)(1)(ii): Casella believes that the word "application" should be changed to "applicant" in this section, to improve readability.

Agreed and corrected.

§6-601(A)(2)(i): We believe that DEC should first communicate to the applicant if the application is not technically complete, and provide the applicant rationale for why the application was not complete, and another opportunity for the applicant to properly complete his or her application. This would create better communication on between the DEC and the applicant. This suggestion is displayed in the edited section below.

If **the Secretary determines that an application is incomplete under this subsection, the Secretary provides notice to the applicant of the reasons for technical incompleteness. If upon determination that the applicant cannot provide a technically complete application, the Secretary provides notice of the Secretary's intent to deny the application through the ENB or other web-based public notice service provided by the Department of Environmental Conservation.**

The language 'intent to deny' is functionally equivalent to the currently utilized term 'technically incomplete'. A strict reading of a technically incomplete letter is that the Secretary intends to deny an application, as submitted, and will only consider approval if a technically complete application can be provided. The language on application submittals, review and approval utilized throughout these proposed rules derives from 10 V.S.A. 170 which is standardizing the certification process throughout DEC. The language on intent to deny derives from this statute and as such no changes have been made to the language.

§6-601(A)(3): As public meetings are very costly, more than one person 's request should be required to necessitate one. The regulations should also specify that requests may only be made by Vermont residents. Please see Casella's revision below.

Comment period; public meeting: Upon request by- a signed petition with at least 50 signatures of Vermont residents ~~any person~~, or upon the Secretary's own motion, the Secretary shall hold a pu meeting on the Secretary's draft decision. Such request or motion shall be made within 14 days of the posting of the notice of the Secretary's draft decision made pursuant to §6-601(A)(2)(ii) above.

This is provided for within 10 V.S.A. 170 §7713(d), we cannot be less accommodating than required by statute within these rules. No changes have been made.

§6-601(A)(3): We believe that the statement "Upon request by any person" should be revised to something similar to the previous language, which generally indicated that a written

request signed by at least 25 residents of the municipality wherein the facility is proposed to be located was needed in order to hold a public meeting. While we agree that people should be able to voice an opinion, the term "any person" is very broad and will likely result in unnecessary public meetings based on the views of an extremist minority that may not even have a vested interest. This flexibility to make this decision is already provided by the statement "…or upon the Secretary's own motion…". We suggest that the section be reworded to state "Upon receipt of a written request signed by at least 25 residents of the municipality wherein the facility is proposed to be located, or upon the Secretary's own motion…".

This is provided for within 10 V.S.A. 170 §7713(d). These rules cannot be less accommodating than required by statute, no changes have been made.

§6-601(A)(3)(ii): Casella recommends that "at least" is removed from this section, seven days should be a sufficient time period for written comments.

This language derives from 10 V.S.A. 170 §7711(e)(1)(C), we cannot be less accommodating than required by statute within these rules. No changes have been made.

§6-605(B) & §6-707(A): Recommend that electronic copies of documents accessible from the facility be a satisfactory alternative to hard copies.

These draft rules do not specify the format of the copy, just that it needs to be accessible by all facility personnel. If electronic copies are sufficient to meet this standard, they would be acceptable.

§6-607(B): Casella is proposing an additional number under this section, to provide some regulations on requesting party status. Please see the following proposal.

The Secretary shall determine the right of the petitioner or any other persons requesting party status to participate in **the proceedings.** In **determining party status, the Secretary shall consider whether a person or his or her property is directly affected by the facility or activity(ies) authorized** in the **certification, or registration. The Agency shall automatically be a party to the proceeding.**

Party status is covered by §6-607(G) and reflects that the Secretary must determine impact in order for a petitioner to be provided party status for suspensions and revocations.

Subchapter 7 – General Siting, Design, and Operating Standards

§6-702(A): I would suggest you may want to give deference to sensitive areas identified in town and regional plans, and avoiding agriculturally important soils (prime agricultural soils).

Facilities are required to be included in Local Solid Waste Implementation Plans, these plans must be in conformance with regional and town plans.

§6-702(A)(2-4): DEC should change the term "Conditional Use Determination" to "Wetlands Permit" for consistency with current naming conventions.

Wetland Permits have now been incorporated within this language; however, Conditional Use Determinations will also remain included. Although the use of conditional use determinations has been replaced by wetlands permits, there are some issued determinations that will still be in place for ~4 more years prior to their replacement with a permit.

§6-702(A)(7): I'm not sure what a diffuse disposal facility is, but I would recommend avoiding habitat for rare species and unique natural communities. You may want to talk with the heritage program on this.

Diffuse Disposal refers to the land application of waste that have an agronomic benefit. These facilities have a certification process and are reviewed for feasibility. The land application sites are typically in Agriculture production. The diffuse disposal facility certification has a FULL public notice procedure with two public comment periods. One comment period is advertised by the applicant, the second by the residuals program – currently required to be posted in newspapers and direct mail to local residents, town officials, Solid Waste Districts, Regional Planning Commissions, and other interested parties.

§6-702(A)(8): I would suggest that facilities be prohibited within special flood hazard areas as shown on the most recent FEMA maps. These areas include the 100 year floodplain, the flood way and areas that may be outside of either but subject to flooding due to topographic conditions. The rivers management program has shifted from fluvial erosion hazard areas to river corridors, and you should use that term. The maps of those are much more extensive than mapped fluvial erosion hazard areas. You may want to consult with Shannon Pytlik or Ned Swanberg. You may want to consider prohibiting such facilities in the 0.2% probability of flooding, also known as the 500 year floodplain.

Agreed, river corridors have been added to the prohibitions.

§6-706(D): Casella is proposing the insertion of "of discovery" after the phrase "must be reported within 24 hours" as seen in the revision below. This would provide the facility owner and/or operators some flexibility of reporting timeframes. The owner/operator should only be held accountable to report after knowledge of the discharge or emission, it would be impossible to report within 24 hours if the discovery was not made until after that time period. We would also like DEC to clarify if weekends and holidays are covered under this 24-hour time frame.

Any discharge or emission from a facility which poses a threat to public health and safety, a danger to the environment or the creation of a nuisance must be reported within 24 hours of discovery to the State of Vermont Waste Management Division, the local health officer, and the selectpersons of the affected municipalities. Within 7 days of the event, a written report shall be submitted to the parties to whom the event was reported. The report shall identify the discharge or spill that occurred, the type, quantity, and quality of waste discharged or spilled, and the actions taken to correct the problem.

The requirement to report within 24-hours implies that the reporting can only occur after the discovery of the discharge or emission and implies the implementation of regular investigation of a facility. Suggested changes do not provide additional clarification. Additionally, weekends and holidays are covered within the 24-hour time frame and the spills hotline operates 24 hours a day, 7 days a week to accommodate such reporting.

§6-707(A)(2): Casella believes that this section should be removed, as these reports are now stored in an online database, Re-TRAC, and storing hard copies of these reports at facilities is not necessary.

Agreed. Given the submission of the quarterly and annual reports in a digital format, which the Secretary has easy access to historical data and that digital records may not be located at the primary location of the facility, this requirement has been removed.

§6-708(C)(3): A corrective action requirement might be a multi-party project, or there may be shared responsibility, and it may not be appropriate in all situations to tie it to the certification, and would be more appropriate to be a stand-alone requirement. Casella believes that this section should be removed.

The fact that multiple parties may be involved doesn't relieve the obligation of the solid waste facility to perform corrective actions and those appropriate components will be conditioned within the facility certification. This requirement does not preclude other mechanisms of corrective action plan management. No changes have been made.

§6-802(D): Casella believes that closure and post-closure cost estimates should be approved by theAgency on a case- by-case basis, rather than using standard procedures as each facility is unique.

§6-804 and §6-805 set the minimum requirements and guidelines for calculating closure costs. The procedures are intentionally generic and do not preclude review of facilities on a case-by-case basis. If specific examples of constraints caused by following the procedures can be made the Secretary, or proposed amendments to the procedures, the Secretary will address those individually.

§6-803(B)(2): Municipalities are not responsible for financial closure, however if a municipality were to drop out of a solid waste district, who would then obtain financial responsibility for the facility? Some municipalities have not prepared appropriately for this circumstance, and what is the state's expectation of financial assurance for the solid waste districts? Casella believes that all facilities should have the same financial expectations.

Municipalities can be the responsible parties for financial closure, and often are. If a municipality were to leave a solid waste management, and that SWME had previously been responsible for funding financial closure, the Secretary would then hold the municipality to the financial responsibilities prescribed by these rules and would require evidence of financial assurance.

§6-805(C-D): Casella suggests that this section is revised for better readability, and that section (F) is incorporated into section (D), as it does not require a separate section. Please see our revision below.

C. For the purposes of post-closure cost estimates, the post-closure period for landfills shall be 30 years from the date that installation of the capping system is completed ~~or the date of the last most recent estimate submitted~~. Post-closure care activities will persist until the performance standards for custodial care as outlined in §6-1008 are achieved, which may extend beyond the 30-year planning period.

D. The financial assurance mechanism provided for the post-closure care must not decrease below the amount of the ~~30 year~~ cost estimate at any point during the post-closure period unless:~~.~~

In the event that post-closure monitoring data and any other available information provides sufficient evidence that the required performance standards for custodial care will be achieved, as provided for in §6-1009, the certification holder may submit a request for a modification to the post- closure plan and associated cost estimates shall be adjusted to reflect an appropriate reduction in post-closure care activities.

The Secretary disagrees that item (F) should be incorporated into (D); however, for the sake of clarity as reorganized this section to reflect that post-closure plan updates can be made at any point during the post-closure period.

The Secretary would also like to clarify that the post-closure financial planning period is proposed to be a continuous 30-year period, regardless of how many years have passed since closure. The strike-outs proposed within items C and D above would functionally remove this requirement. As the cost estimates are proposed to be submitted annually, the language retained in C above provide for the rolling 30-year maintenance of the post-closure funds.

§6-805(C): Who will determine the performance standards for custodial care, and who will determine if the standards are achieved? Will there be assurances that the performance standards will not be changed over time, essentially making the standards impossible to achieve? How will custodial care beyond the 30-year horizon be funded? Will changes to the performance standards take the post-closure estimates into account? What happens to the owner of the landfill if due to changes in the performance standards, the owner is no longer able to fund the post-closure?

The performance standards for custodial care are outlined in §6-1009(B) of these proposed rules. The section reference has been corrected within §6-805(C). Custodial care will be approved by the Secretary upon written request from the closed landfill owner/operator. The written request will need to demonstrate attainment of each of the performance standards for the Secretary's approval. Language has been added clarifying that the Secretary will make the determination.

These performance standards are being incorporated into rule from the current 2013 *Procedure Addressing Completion of Post Closure Care for Solid Waste Disposal Facilities*. If these standards are adopted into rule, it would require a rule change, with the associated public comment period, to change these custodial care performance standards.

Funding of custodial care is not addressed. The post-closure estimates and funds are defined by the scope of the post-closure plan which is submitted by the owner/operator and approved by the Secretary. This plan, and associated costs, may adjust with time; however, these proposed rules require rolling maintenance of financial assurance for 30 years. This means that the fund account will never decrease below a 30-year funding amount. Financial assurance is only required for private facilities. Municipal/public closed landfill will continue to be allowed to demonstrate financial capability.

§6-807(A): Casella believes that DEC should remain consistent with naming conventions. Sections §6-708 and §6-807 use the term "corrective actions", and section §6-201 contains a definition for corrective actions, but does not contain a definition for corrective measures. We believe that DEC should change the title of this section to "Assurances for Corrective Actions" and make the following edits below.

§6-807 Assurances for Corrective Actions ~~Measures~~

A. An owner or operator required to undertake corrective actions ~~measures~~ must have a detailed written estimate, in current dollars, of the cost of hiring a third party to perform to corrective measures. The cost estimate must account for the total costs of corrective measures as described in the plan for the corrective measures period. This cost estimate must be approved and annually adjusted for inflation and any approved changes to the corrective action plan.

Agreed and corrected.

Subchapter 9 – Storage, Transfer, Recycling and Processing Facilities

General Comment: Recommend general definitions at the beginning of this section.

If specific suggestions can be made of definitions that apply to this subchapter that are not included within Subchapter 2: General Definitions. The Secretary has not been able to identify terms specific to this chapter requiring additional definitions, no changes have been made.

§6-902(A): Currently recycling facilities are required to carry a full certification, which we agree with. Our recommendation is that DEC leaves the full certification that is required today. This would include the financial assurance, facility management plans and public informational process. Please see our revision below.

> **Recycling Facilities: Facilities which only manage solid waste materials that can be diverted from disposal. These facilities must obtain a full ~~categorical~~ certification prior to operation.**

Current 2012 Rules (§6-1207(3)) specify all recycling facilities will be categorical unless "the Secretary determines the proposed facility size, processes, recycling activities, or the nature of the solid wastes require additional review and oversight." Some existing recycling facilities have full certifications, but most have categorical certifications. These proposed rules retain a categorical certification for recycling facilities, and the associated requirements of such a certification (financial assurance, facility management plan). The difference is that a categorical certification review process is slightly different from a full certification review process in that the required public comment period is shorter (15 days instead of 30), though it does remain. The proposed rules also have retained the ability for the Secretary to determine that some activities/materials or processes may require additional oversight and be required to submit an application for review under the full process (proposed rules §6-501(E). No changes have been made.

§6-902(C): Identifies Construction and Demolition processing facilities as a storage, transfer, recycling and processing facility type and includes architectural recycling facilities within that type. 6-905 H and 6-906 D include standards for standalone architectural recycling facilities – should this type of facility be separated out as a specific type in section 6-902?

Language has been added to §6-902(D) specifying that recognition as a certified architectural waste recycling facility does require additional requirements than a construction and demolition debris processing facility certification. This language now reads*: 'D. Architectural Waste Recycling Facilities: Construction and Demolition Processing Facilities that recycle all six architectural wastes. These facilities may apply for a full certification, or an amendment to an existing certification, in order to be identified as an architectural waste recycling facility meeting the requirements of 10 V.S.A. §6605m.'*

§6-902(D): Section §6-201 defines the term "Organic Recycling Facilities" rather than "Organic Recovery Facilities". We suggest that DEC alter this to match the previous sections.

Agreed and corrected.

§6-904(E): The final sentence of this section addresses liquid leachate storage, which is also addressed in the following section, §6-904 (F). To prevent repetition, we believe that the final sentence here should be removed, as in the edit below.

All new facilities designed with tipping floors where municipal solid waste is temporarily deposited pending transport, shall be designed and constructed so that the tipping floor is either enclosed within a building or covered by a roof to prevent exposure of waste to weather. The tipping floor shall incorporate a collection system designed to collect liquids leachate that may be associated with incoming waste materials. ~~Liquid Leachate storage tanks shall be double walled, and shall be sized appropriately for the particular facility and volume of waste managed.~~

Agreed. In review and discussion of this comment, the Secretary also determined that a change within §6-904(F)(4) could be proposed. This requirement for leachate collection tanks has been revised to the requirement that they be "tested or inspected biennially for leak detection.

§6-904(J): We believe that there should be more flexibility between storage of food residuals and immediate introduction to the anaerobic digester. In many instances, it may be difficult to coordinate the delivery time to correspond with the time to begin the process. We suggest that DEC provides a time limit for storage.

This language has been altered to required achievement of performance standards rather than provide specified schedules. It now reads: "Organics Recovery Facilities shall be designed to treat food residuals in a manner that prevents impacts to public health and safety, the environment and creation of nuisance conditions (e.g. odors, vector attraction). Organics shall be stored as briefly as possible at the Facility and in a manner which maintains optimal material quality for the receiving facility."

§6-904(J): How long is immediately? There should be a general time reference. Are there penalties expected if "immediately" is not achievable due to force majeure?

This language has been altered to required achievement of performance standards rather than provide specified schedules. It now reads: *"Organics Recovery Facilities shall be designed to treat food residuals in a manner that prevents impacts to public health and safety, the environment and creation of nuisance conditions (e.g. odors, vector attraction). Organics shall be stored as briefly as possible at the Facility and in a manner which maintains optimal material quality for the receiving facility."*

§6-905(A)(8): As currently written, this section is unclear on what is intended by this language. There are no absolute requirements described here. We recommend that DEC revise this section for clarity.

The Secretary disagrees, this section applies to all storage, transfer, recycling and processing facilities. Although these requirements are broad, they do provide guidelines for facility management and operations and for the Secretary's requirements throughout these rules. Unless particular suggestions for clarity or alteration can be provided, this section remains unchanged.

§6-905(C)(1): As defined in section §6-201 above, residuals would not fit in this section. We recommend that the word "residue" is used in its place.

Agreed and corrected.

§6-905(C)(1): Just checking to see that this is talking about food residuals. If the food residuals can be shown to have no potential for material dispersal by wind – is a roofed structure needed?

For clarity, the phrase *process residuals* has been changed to read *process residue* to better reflect intent and prevent confusion on what type of residuals are to be considered by this requirement.

§6-905(C)(2): Should "Parallel Collection" be defined?

In response to other comments on this requirement, the term parallel collection has been removed and the language changed to more closely mimic statutory language. No additional definition is necessary

§6-905(C)(2): With parallel collection required here, it is unclear who the permittee is. Parallel collection is a requirement for a hauler, rather than a facility owner or operator. DEC should revise for clarity.

Reference to parallel collection has been removed and language changed to mimic statutory requirements (parallel collection language only is within the hauler section, therefore the word 'parallel' has been removed).

§6-905(C)(3): There should be a distinction in the regulations for knowledge of disposal of recyclable materials, as seen in the revision below.

The Permittee shall not knowingly dispose of recyclable materials previously source separated by the hauler or the commercial or residential customer.

Agreed and corrected.

§6-905(E)(2): All wastes must be handled by personnel appropriately trained in accordance with all applicable federal and state statutes and regulations;

DEC should clarify what is intended by the term "appropriately trained". Does this require a license or certification?

Agreed, language below has been added to rule;

(A) Facility personnel must successfully complete a program of classroom or on the job instruction that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of these regulations.
(B) This program must be directed by a person trained in hazardous waste management procedures and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.
(C) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment and emergency systems, including, where applicable:
(i) Waste handling procedures;
(ii) Procedures for using, inspecting, repairing and replacing facility emergency and monitoring equipment;

(iii) Key parameters for automatic waste feed cutoff systems;
(iv) Communications or alarm systems;
(v) Response to fires or explosions;
(vi) Response to groundwater contamination incidents; and
(vii) Shutdown of operations.

§6-905(F)(1): Casella believes that 3,000 tires appears to be too much and could create the liability with abandoned stockpiles. 1,000 is a more reasonable number. Tires should be removed or processed anytime the 1,000-tire storage threshold is realized, as in our revision below.

> **No more than 1,000 ~~3000~~ tires may be stored uncovered at the facility site at any time., Tires must be removed from the facility on at least an annual basis, unless the facility processes tires ~~on-site~~, in which case, the maximum amount and the storage design shall be dictated by the FMP ~~facility management plan.~~**
>
> Agreed and corrected.

§6-905(G)(2): While Casella agrees with this requirement, we believe there should be some flexibility to store containers outside on a concrete pad for secondary containment. This additional flexibility could be managed as part of the FMP. Please see our revision below.

> **C&D collected at a facility that does not treat the material on-site must be stored in containers, on a concrete pad or in an enclosed or covered area as outlined by the approved FMP.**
>
> The proposed language allows for the storage within a container or within and enclosed space. The Secretary does not require nor see the necessity of storing containers on a concrete pad. If storage is to be on a concrete pad (containerized), the Secretary does require cover or enclosure. The addition of 'as dictated by the FMP' has been added to this requirement.

§6-905(H)(2): This section should be qualified further to consider the combustion of solid Architectural Waste being compliant when a fuel blend product is produced. This is a significant item for use as this section contradicts itself, allowing "natural" wood waste to be burned for energy, but not other waste woods or sorted products, making disposal the only option as opposed to a positive use as a fuel source.

Is §6605(m) the correct incorporated reference? §6605(m) refers to mandatory recycling exemptions associated with collection events organized by non-profit organizations or municipalities. DEC may want to revise.

> The language of this section has not been changed. Facilities that burn biomass only can utilize natural, clean wood; however, the Secretary does not agree that any fuel blend production should be considered as in compliance with the goals of achieving diversion or recycling of the waste stream.
>
> The statutory reference has been changed to §6605m which is the correct statutory reference on architectural waste recycling.

§6-905(I)(1): As with our comment for section §6-905 (C)(2), this should be a requirement of the hauler, rather than the facility. Additionally, parallel collection for leaf and yard waste is further unreasonable as this is a seasonal

material. DEC may want to revise this section.

The word parallel has been removed and the language changed to reflect statutory language requiring the leaf and yard waste collection at facilities.

§6-905(I) & (J): You might want to note that these apply only to facilities that accept MSW.

Agreed.

§6-905(I) has been changed to read: *In accordance with §10 V.S.A §6605(j)(2), facilities offering collection of municipal solid waste shall offer collection for leaf and yard waste. These materials may be stored on the ground and are exempt from the containerization requirement of §6-905(B)(1)*

§6-905(J) has been changed to read: *In accordance with §10 V.S.A 6605(j)(3), the facilities offering collection of municipal solid waste shall offer collection for organics (food residuals) at the facility by July 1, 2017.*

§6-905(J)(1): As with our comments on sections §6-905 C.2 and §6-905 I.1., parallel collection should be a requirement of the hauler rather than the facility. Also, as required by Act 148, the ban of food residuals into landfills begins July 1, 2020, rather than July 1, 2017.

The word parallel has been removed and the language changed to reflect statutory language requiring food residual collection at facilities.

§6-905(J)(1): The definition of "organics" includes food residuals, along with leaf & yard debris, paper etc. Why use the term "organics" in this section if it just addresses food residuals?

Agreed and corrected.

§6-905 (J)(3): We believe the requirement for wood shavings or saw dust should be eliminated as those materials may not be conductive to mix. Other requirements, such as storage in containers, would address concerns of vectors and odors. Casella suggests to remove the final sentence, as seen in the revision below.

The Permittee(s) shall store all food residuals in watertight, lidded containers. ~~**An adequate supply of wood shavings or saw dust shall be on hand to cover the food residuals to control vectors and odors.**~~

As suggested and to provide clarity and flexibility, this requirement has been revised to reflect performance standards which much be achieved and draft language now reads: *"The Permittee(s) shall store all food residuals in a manner that prevents leaking of associated liquid, minimizes nuisance odors, prevents vectors, prevents contamination and preserves the integrity of the material for the receiving facility. Specific management methods shall be identified in the FMP."*

§6-905(J)(3): Could "or other appropriate absorbent material" be added which is the language used in 6-1205 A.2.ii.? Would not materials such as leaves, paper towels, or hay also control vectors and odors?

As suggested there may be other appropriate materials or management options. To provide clarity and flexibility, this requirement has been revised to reflect performance standards which must be achieved and draft language now reads: *The Permittee(s) shall store all food residuals in a manner that prevents leaking of associated liquid, minimizes nuisance odors, prevents vectors,*

prevents contamination and preserves the integrity of the material for the receiving facility. Specific management methods shall be identified in the FMP.

§6-905(K): Why was "scrap metals" deleted, particularly since "appliances" was not.

The Secretary believes that best management practices for generic scrap metal is to containerize the material to facilitate removal rather than stockpiling on site. Due to the need to remove refrigerants from appliances, the management needs for this subgroup of scrap metal are different and so they have been specifically identified in order to allow for that management.

§6-905(K)(1): The limit for 2,000 CY seems to be too much and could create the liability with abandoned stockpiles, 300 CY seems to be a more reasonable number. Materials should be removed or processed anytime the 300 CY threshold is realized.

The 2000 cubic yard limitation is established within the current 2012 Solid Waste Management Rules and has been functioning without complications. No changes have been made.

§6-906(F): The term "agreements" should be removed or defined. This seems to imply a formal written agreement, which is a matter of business, not regulation. It may be a better option to say "arrangements", as in the revision below.

ORFs which process food residuals for use as a feedstock for an anaerobic digester or compost facility shall have arrangements ~~agreements~~ in place with those facilities and shall demonstrate in the FMP that these agreements are sufficient to properly manage the expected capacity of the facility.

Agreed. This requirement has been changed to read: *"ORFs which process food residuals for use as a feedstock for an anaerobic digester or compost facility shall demonstrate in the facility management plan that the produced feedstock will be transported to a certified facility with sufficient capacity to accept anticipated volumes and/or materials types."* This rewording should eliminate the confusion regarding the word arrangement and provide an applicant with flexibility in determining how to make the demonstration.

Subchapter 10 – Disposal Facilities

General Comment: Recommend general definitions at the beginning of this section.

If specific suggestions can be made of definitions that apply to this subchapter that are not included within Subchapter 2: General Definitions. The Secretary has not been able to identify terms specific to this chapter requiring additional definitions, no changes have been made.

§6-1002(A)(1): Act 148 bans these materials from disposal – can they continue to go into a stump dump?

The Secretary strongly recommends that clean wood debris be reused, repurposed, or recycled, for uses such as: construction (for dimensional lumber); chip for new particle board; mulch; compost feedstock; firewood; and biomass energy. If all reasonable efforts have been made to find end markets for recycling, reuse, and repurposing and no other options exist, clean wood may be buried at categorical disposal facilities (but not landfills). No changes have been made

§6-1002(A)(3): Why was "rinsed non-recycled glass" deleted?

Due to the inclusion of glass bottles and jars as mandated recyclables within statute, these materials are no long eligible for disposal within a categorical disposal facilities.

§6-1002(A)(8): Casella proposes that development soils be removed from this section. We believe that any contaminated soils should be disposed of in a lined landfill, as disposal otherwise may be harmful to public health and the environment. Development soils have levels of contamination, and disposal outside a lined landfill could create some risk in harmful effects to public safety and the environment. Additionally, with more sites for disposal of development soils, more areas will require monitoring, which may become costly.

The disposal of development soils at facilities other than a lined solid waste landfill was proposed by 10 V.S.A. §6604c. The Secretary believes that the required testing and analysis of both the origin location for the soils and the receiving location is sufficient to provide appropriate control for the given risk level of these soils. No changes have been made.

§6-1003(B)(5): We question whether this note is necessary, as we believe that this is taken into account with the property setback requirements provided in Table A of §6-703.

This siting requirement is for consideration of monitoring and remediation systems, not the siting of the facility which is addressed in §6-703. As landfills require these monitoring systems (as opposed to other solid waste facilities) this is a consideration specific to landfills and must be judged on a case-by-case basis, given the location, and therefore is included within §6-1003. No changes have been made.

§6-1004(G)(l): Casella disagrees with this regulation. We believe that there should be no waste disposed of without a liner system under any circumstances as we know there will be impact to the environment.

Noted, this exemption is provided for within statute; 10 V.S.A. §6005a(c). These facilities would also be held to a requirement for remedial action if there were a significant impact to the environment. No changes have been made and the exemption is being retained.

§6-1004(G)(2): As with our comment for 6-1004 (G)(l) above, landfills should also be required to have a leachate collection system, as otherwise this would be harmful to public health and the environment. We suggest that the section is revised as the following.

- **New discrete disposal facilities landfills or new operational units at an existing facility, placed operation after July 1, 1987, shall have liner and leachate collection.** ~~systems and appropriate provisions for leachate treatment, except as otherwise provided in §6-309(b) or in §6-1004(G)(1) of these rules. The Secretary may further waive the liner requirement for discrete disposal facilities landfills or portions of discrete disposal facilities landfills that are designated solely to receive particular waste components that are not the a potential source of leachate harmful to public health and safety or the environment or the creation of nuisance conditions.~~

Noted. The liner exemption is provided for within statute; 10 V.S.A. §6005a(c). No changes have been made.

§6-1004(G)(3): The Groundwater Protection Rule and Strategy sets groundwater standards for drinking water. Landfills cannot be sited in an area that would affect drinking water, so these rules should not apply here. We suggest that DEC make the following revision.

Expansions of an existing facility that has documented groundwater contamination may be approved on a case-by-case basis. The design of the proposed expansion must demonstrate that construction will be in compliance with these rules.: ~~and with the Groundwater Protection Rule and Strategy~~. Consideration of additional monitoring requirements, needed to demonstrate the integrity of the expansion area independently of the existing areas (e.g. monitoring beneath the liner of the expansion area) shall be included in the design. Remedial actions of the existing contamination shall also be included in the design and shall demonstrate improvement in groundwater quality.

10 V.S.A. §1390 designates groundwater as a public trust resource within Vermont and requires that the Secretary protect all groundwater resources to maintain high-quality drinking water. The Groundwater Protection Rule and Strategy defines standards for groundwater concentrations. This groundwater standards are derived from drinking water standards, but protect groundwater independently regardless of whether the groundwater resource is serving drinking water supply.

§6-1004(G)(3): We believe that it should be clarified on how remedial actions of the existing contamination that are included in the design shall demonstrate improvement in groundwater quality. Is the intent to have this demonstrated through modeling or other groundwater evaluation tools?

This requirement has been rewritten to provide clarity and better express intent. There may be certain remediation or monitoring components which must be incorporated into the design of an expansion area in order to be effective in managing existing contamination. These components must be included, if needed, or it must be demonstrated that they are not needed. Modelling may be sufficient demonstration, but other tools certainly could be employed. The requirement has been rewritten to:

'Expansion of an existing facility that has documented groundwater contamination may be approved on a case-by-case basis. The design of the proposed expansion must demonstrate compliance with these regulations and that the management and/or remediation of the existing contamination will not be worsen due to the expansion. The design for expansion at a facility with existing contamination must provide:

- *i. Sufficient environmental monitoring to assess the impacts of the expansion prior to a point or points of compliance and provide for the capability of remediation within property boundaries if necessary;*
- *ii. any additional monitoring systems necessary to monitor the proposed expansion area independently of preexisting operational units (i.e. monitoring systems beneath the liner of the expansion area, expanded monitoring well networks, tracer systems);*
- *iii. Demonstration through modelling, or other means, that existing contamination will not be worsened by the expansion.'*

§6-1004(G)(4)(v): Casella believes that this section can be removed as it is already covered in section §6-1004G. iv. above.

Agreed and removed as part of overall comprehensive changes to this subchapter.

§6-1004(G)(5): We believe that it would be beneficial to define the term "landfill subgrade", specifically, an indication of the vertical limitation of what is considered landfill subgrade. Similarly, we believe that it would be beneficial to define the term "low-permeability materials" in this section. Different permeabilities for soils are referenced in several locations in the draft SWMRs.

In this case, the term *landfill subgrade* is being used to describe the materials, native or placed, that was prepared in the excavated area in preparation for the installation of the liner system.

In review of this comment and others received on the landfill design parameters and language, this subchapter is undergoing significant revision. The intent of these revisions is to provide better indication of the performance standards that the Secretary expects to be achieved by a landfill design. This revision process is still underway and as such we cannot provide proposed language, at this time, but will incorporate the suggestions of this comment into those revisions.

§6-1004(G)(6): We feel that clarification is needed on what comprises the liner and/or the liner system. Based on the way the language in parts (i) and (ii) has been revised, it appears that both the primary and secondary liners shall at a minimum consist of a layer of 60-mil HDPE FML and do not necessarily require a natural component/material, which brings in to question why part (iii) is necessary, if it is not required. Is it the WMPD's intent that the synthetic be a minimum of 60-mil HDPE, or is a synthetic also supposed to mean something like a drainage geocomposite?

Additionally, part (ii) could be interpreted as meaning that the secondary liner shall consist of a synthetic material and a minimum of a 60-mil HDPE FML (meaning two layers of synthetic materials). We would suggest that the section be revised to reflect language similar to part (i).

The Secretary agrees that the language of this section as proposed was ambiguous. In review of this comment and others received on the landfill design parameters and language, this subchapter is undergoing significant revision. The intent of these revisions is to provide better indication of the performance standards that the Secretary expects to be achieved by a landfill design. This revision process is still underway and as such we cannot provide proposed language, at this time, but will incorporate the suggestions of this comment into those revisions.

§6-1004(G)(6)(i)-(ii): The requirement for a minimum of 60-mil should be revised to read as an average of 60-mil. Industry standard is generally an average, as there may be instances in which field measurements yield slightly below or above 60-mil. Please see the following revisions.

The primary liner shall be a synthetic material, or a composite of synthetic and natural material, with the synthetic layer consisting of an average ~~minimum~~ of a 60-mil High-density Polyethylene (HDPE) Flexible Membrane Liner (FML). The liner must be chemically compatible with anticipated waste and leachate characteristics

The secondary liner shall consist of a synthetic material, or a composite of synthetic and natural materials, and an average ~~minimum a~~ 60-mil HDPE FML.

Agreed and corrected as part of overall comprehensive changes to this subchapter.

§6-1004(G)(6)(iv): Typical landfill designs often contain cleanouts and sump riser pipes for the secondary leachate collection system, which if they are to be accessible, need to penetrate the primary liner system typically at the top of the sideslope outside of the limit of waste. We ask that the WMPD revise this sentence to "The liner system shall not be penetrated by any appurtenances except for penetrations at the top of the slope to facilitate the operation and maintenance of the secondary leachate collection system."

Agreed. This requirement has been changed to read: *The liner system shall not be penetrated by any appurtenances with the exception of penetrations, at the top of the slope and outside a defined limit of waste, as needed to facilitate the operation and maintenance of the secondary leachate collection system.*

§6-1004(G)(7): Casella believes that this section should allow some flexibility for alternatives such as structural fill

between the primary and secondary liner. We propose the following revision.

> **The liner system shall be covered in the base area with an overlying protective ~~granular~~ soil layer sufficient to protect the liner from puncture, assist in leachate removal ~~migration~~ and limit hydraulic head development on the liner. Geosynthetics may be used in areas of extended side slopes, ~~where placement of granular materials is not possible~~, to provide this same functionality.**

Generally agreed and corrected as part of overall comprehensive changes to this subchapter, though the language has significantly altered from this initial draft.

§6-1004(G)(9): We believe that the requirement should remain at 12 inches for both the depth of leachate and the depth stored on the primary liner following a 25 year/24-hour storm, rather than change to 30 centimeters. Our current leachate collection systems have been designed in inches, any with the conversion, this could have an effect on any future leachate collection system construction.

Thirty centimeters is the Federal requirement. The difference of 0.48 cm (0.189 in) should be manageable for future designs and would only apply to new construction submitted for approval under these adopted rules.

§6-1004(G)(10): What is the reasoning and significance behind requiring a leachate storage capacity of 20% of the 100-year storm event? Is this value arbitrary or based on specific findings? It seems to make more sense that the leachate storage volume requirement would be based on the worst case leachate generation condition, which is typically when a new landfill is constructed immediately after waste placement activities begin, and generally for a specific rainfall event, not a percentage of one. Is the intent to provide the design engineer with the flexibility to evaluate the leachate generation based on their design which is usually a phased development of landfill cells that can be designed to reduce leachate generation?

The intent of this condition was to provide sufficient storage capacity to manage leachate during the 5-days of permissible >30 cm of leachate buildup on the liner following a 25-year-24-hour storm event. The 20% was derived from the 5-day limitation and the volume would be derived from the worse-case leachate generation. In response to comments during this draft rule comment period, Subchapter 10 is undergoing substantial revision to the design portion of the subchapter. These revisions include expansion of the discussion regarding the leachate collection and removal system and the associated performance goals. This requirement has been altered to better reflect the intent and considerations that must be demonstrated by the design.

§6-1004(G)(11): We believe that the 10-year limit should be removed from this section, and that this section should also take temporary closure into account. Please see our revision below.

> **Discrete disposal facility landfill designs shall provide a sequential capping plan for temporary or final closure ~~closing operational units of the disposal facility during its life. Such operational units shall be designed for a life not to exceed five ten (10) years unless otherwise approved by the Secretary~~.**

The 10-year limit will remain, as this is the target that the Secretary proposes as reasonable for most management units. It should be noted that there is opportunity for the applicant to propose other timelines, which may be approved by the Secretary as is provided for in the last sentence. The suggestion to change this requirement to incorporate consideration of interim capping has been utilized.

§6-1004(G)(12): We believe that this section should be revised as follows;

> **Facility design ~~facilities~~ shall provide adequate ~~assure the~~ control and ~~-~~management ~~treatment,--if as determined necessary by the Secretary~~, of landfill gas ~~gases~~ resulting from the decomposition of wastes to prevent hazards to public health and safety, the environment, or the creation of a nuisance.**

The language 'provide adequate' provides too much flexibility and is too open to interpretation, the language 'assures the control' will be retained. The other suggestions for clarity have been accepted and corrected within the proposed rules.

§6-1004(G)(13): Please see the following revisions of this section. Landfill designs should be made to control or manage leachate, rather than to minimize it.

> **~~Discrete disposal facility~~ Landfill designs shall provide adequate ~~for the appropriate~~ control of surface water run-on and run-off, as determined by the Secretary. At a minimum designs shall include a management system to divert run-on, control run-off discharge, control erosion, sedimentation, siltation and flooding ~~and minimization of leachate~~.**

The best environmental practice is to minimize leachate production, not just to assure management. The purpose of interim capping and final cover is to serve this purpose. This requirement has not been changed.

§6-1004(G)(15): These plans should be named "fill plans" rather than "landfill design and fill plans" as they are only pertaining to the fill procedures of the landfill. Please see our suggested revisions to this section.

> **Landfill ~~design and~~ fill plans must be developed such that final grades are achieved as soon as practical ~~possible~~ and that the open area for active filling be minimized. Fill Plans ~~Designs~~ shall include appropriate extent and duration of ~~planned~~ anticipated intermediate cover and interim cap that may ~~will~~ be utilized prior to final capping of the landfill units.**

Generally agreed. Suggested changes have been made with the exception of the change to may instead of will within the last sentence.

§6-1004(G)(15): We believe that requiring fill plans and information on the extent and duration of planned intermediate cover and interim capping is excessive when considering the design of a landfill that is expected to provide decades of capacity. This information is largely dependent on fluctuating circumstances such as disposal rates and decomposition. As such, this requirement will likely add cost to the project design and permitting. We ask that the WMPD provide flexibility to alter the extent and duration of planned intermediate cover and interim cap for these reasons.

> The intent of this requirement was to provide the Secretary with plans on the sequencing of fill within landfill units and the performance measures that would be utilized to determine transition from intermediate to interim cap and ultimately to final cap. The Secretary acknowledges that the provided language was more limiting than intended and has rephrased the condition to read as follows:
>
> *Landfill design and fill plans must demonstrate that final grades will be achieved as soon as possible and that open area for active filling be minimized. Submitted plans shall provide:*

i. *The anticipated sequence of landfill unit fill and interim capping;*

ii. *Description of performance criteria that will be evaluated to judge intermediate cover and interim cap effectiveness and the need for replacement or transition to final cap;*

iii. *Demonstration that the requirements of §6-1005(B)(11-12) will be achieved by the proposed fill sequence.*

However, it should be noted that substantial revisions to the proposed Subchapter 10 design requirements are under consideration and while the intent of this requirement will remain the drafted language may change throughout this process.

§6-1004(G)(16): Can you clarify on whether the vegetation/erosion control layer identified in part (i) can be considered part of the 24-inch protection layer identified in part (ii)? If it is considered separate, this may effectively decrease the amount of available waste capacity in a landfill, if there are height restrictions. Historically, the WMPD has approved final cap systems designed in this manner.

In review of this comment and others received on the landfill design parameters and language, this subchapter is undergoing significant revision. The intent of these revisions is to provide better indication of the performance standards that the Secretary expects to be achieved by a landfill design. This revision process is still underway and as such we cannot provide proposed language, at this time, but will incorporate the suggestions of this comment into those revisions.

§6-1004(G)(16): Additionally, we believe that the hydraulic barrier layer identified in part (v) should include the 40-mil LLDPE flexible membrane liner identified in part (iv), as part (v) compares the required permeability to the bottom liner system, which includes both a primary and secondary 60-mil HPDE FML, as noted previously. The way this is currently written implies that the hydraulic barrier layer needs to have a permeability equal to the HDPE. It will not be possible to find earthen material that has a permeability less than or equal to the permeability of the 60-mil HDPE FML, and seems to be unnecessary since that characteristic is being provided by the LLDPE FML.

The Secretary agrees that the proposed language was unclear given the ambiguity of that language providing for the consideration of a minimum 60-mil geomembrane within the secondary liner. In review of this comment and others received on the landfill design parameters and language, this subchapter is undergoing significant revision. The intent of these revisions is to provide better indication of the performance standards that the Secretary expects to be achieved by a landfill design. This revision process is still underway and as such we cannot provide proposed language, at this time, but will incorporate the suggestions of this comment into those revisions.

§6-1004(G)(16): Lastly, we believe that part (vi) should be revised to say "a gas collection layer or approved alternative", as a gas collection layer may not be needed if the landfill is equipped with an active gas collection and control system.

Agreed and corrected.

§6-1004(G)(16)(iii): We believe that this requirement should have some flexibility for the type of drainage layer, so that other materials may be used in place of geocomposite. Please see our revision below.

an engineered ~~geocomposite~~ drainage layer providing adequate drainage off of the FML;

Generally agreed and incorporated as part of overall comprehensive changes to this subchapter. Final language changes are not yet available, but will reflect incorporation of flexibility within the drainage layer construction materials.

§6-1004(G)(16)(vi): As with our previous comment, this section should be revised for additional flexibility. A gas collection system considered equivalent should also be acceptable for this requirement. Please see our revision below.

a gas collection layer or equivalent gas collection system located beneath the FML.

The Secretary generally agrees that providing flexibility in design practices would be beneficial and has incorporated the comment as part of overall comprehensive changes to this subchapter addressing performance standard requirements. Language changes will be available for public comment later in the rule making process.

§6-1004(G)(18): Waste decomposition rates and settlement is largely variable and likely impossible to accurately quantify; therefore, we believe that the term "after settlement" should be removed. It was our understanding that the minimum slope was generally intended to account for the future settlement that may occur. It seems that the post-closure maintenance of landfills would generally address areas of ponding/settlement that may occur over time.

The Secretary disagrees. The design of the final capping system should target a minimum final settlement slope of 5% to facilitate runoff from the capping system. The design should not anticipate settlement at lower slope angles with the intention of correcting them during the post-closure period. The Secretary agrees that settlement can be variable and difficult to quantify and that any unusual and unexpected settlement patterns can be addressed during the post-closure period, but the designed final capping system should be reasonable.

§6-1004 (G)(22): The term "aquifer" used in this section should be changed to "groundwater" for consistency with the definition listed in §6-201. Please see the revision below.

A groundwater monitoring system must be designed and installed with a sufficient distribution and number of monitoring wells at depths capable of yielding groundwater samples from groundwater ~~aquifers~~ potentially impacted by the landfill. Up-gradient and/or other monitoring wells must also be established, as needed, for the determination of local background groundwater quality.

The Secretary disagrees. Aquifers implies consideration of multiple groundwater systems (surficial vs. bedrock) that may need contemplation in development of the groundwater monitoring system.

§6-1005(A)(1): To ensure consistency with our comment on §6-1002 (A)(8), that development soil disposal should not qualify to be a categorical disposal facility, we would also like to propose that this section be removed as well.

The Secretary disagrees and no changes have been made.

§6-1005(A)(5): Quarterly reports are already required to be submitted using Re-TRAC. DEC should either clarify that the reports required here are the Re-TRAC report, or remove this section.

Although ReTRAC is the current service utilized for the digital reporting, it is a contracted service and potentially could change in the future. The generalized language of this section will remain to provide the requirement, but will not specify ReTRAC reporting. The availability of these quarterly reports at the facility can be in their online/digital format.

§6-1005 (A)(6): To be consistent with our comments for §6 - 1002(A)(8) and §6-1005(A)(l), we believe that this section should be removed.

The Secretary disagrees, no changes have been made.

§6-1005 (B)(12): We believe that the term " engineering plans" should be changed to "fill plans", to ensure consistency with our comment for §6-1004(G)(l 5). Please see the revision below.

> **Interim capping shall be carried out in accordance with fill ~~engineering~~ plans. To minimize infiltration and enhance gas collection, the operator may place interim cap in areas that are not anticipated to receive waste for a significant period of time. Interim caps shall:**

Agreed and corrected.

§6-1005 (B)(12)(iii): This section should also include some language for the life of the temporary cap. The final capping system should not have to be put into place if the temporary cap still has some life remaining. Please see our revision below.

> ***i.*** **be replaced by the final capping system when it is determined that additional waste will not be placed in the area and the temporary cap has reached the end of its useful life.**

If it is known that waste will not be placed within a given area, there is no reason to delay installation of final cap. Making the determination that temporary cap has reached the end of 'useful life' is unlikely to be a straightforward process and prone to controversy, potentially even requiring some degree of failure of the temporary cap. Certainly, if temporary cap reaches the end of its useful life prior to the determination that waste will not be placed within the area, it will require replacement either with additional temporary cap or with final capping materials. No changes have been made.

§6-1005(B)(13): Additional settlement will likely occur once final grades are attained; therefore, we believe that this should be reworded as follows: "Within 30 days, the operator shall notify the Agency in writing when the facility has reached final grades, or capacity limits, or ceases accepting waste. An interim cap or final cover capping system shall be in place within 90 days….". This will allow the landfill owner to gain waste capacity and extend the life of the landfill.

The Secretary disagrees. The provision under §6-1005(B)(12) covers the progression from intermediate cover to interim capping and when interim cap must transition to final cap. This requirement §6-1005(B)(13) addresses the sequence of notifications that must occur once the transition to final cap is occurring. §6-1005(B)(12)(iii) provides for initiating final cap placement when it is determined that additional waste will not be placed. This determination can consider additional settlement to gain waste capacity. No changes have been made.

§6-1005(B)(15): As with our comment on §6-1004 (G)(9) we believe that these requirements should remain in English units. Please see our revision below.

> **Groundwater monitoring must occur as specified in the issued certification. The point of compliance shall be no more than 450 feet ~~150 meters~~ from the waste management unit boundary and be located on property owned by the landfill owners.**

The 150-meter point of compliance is established by federal regulations (40 §258.40), although the suggestion of 450 feet would be more conservative than the 150-meter proposal, the

Secretary does not feel that the adjustment is necessary and conversion between units is not an unreasonable expectation.

§6-1005(C)(1): How does one get written approval from the Secretary to dispose of biosolids at a landfill?

It should be noted that this requirement is located within the disposal facility subchapter (Subchapter 10) and not the residuals management subchapter (Subchapter 13). As such, the intent is that the landfill operator receives written approval from the Secretary prior to disposing of biosolids at the certified landfill, typically as part of the original certification process, and not that the generator receive approval.

For the generation, only a Sludge Management Plan (SMP) is necessary, which must identify end disposal facilities. Facilities can be simply and expediently added to or removed from the SMP's approved locations by an exchange of letters.

§6-1005(C)(2): Recommend that % solids be left to the judgement of the landfill operator, rather than a lower limit of 18%.

The Secretary disagrees that there should be no minimum value established for the percent solids acceptable for disposal within a landfill due to decreased performance. It should be noted that to pass the required paint filter test, the percent solids content will typically be roughly 18% and so this requirement is not significantly more restrictive than requiring the paint filter test to prevent the disposal of materials with free liquids.

§6-1005(E): Casella has been able to dispose of bulk or non-containerized liquid waste, and we do not believe there should be a restriction for this. Please see our revisions of this section below.

1. **Containers holding liquid waste may not be placed** in a **landfill unless:**

   i. **The container is a small container similar in size to that normally found in household waste;**

   u. **The container is designed to hold liquids for use other than storage; or**

   ill. **The waste is household waste.**

   iv. ~~Bulk or non-containerized liquid waste may not be placed in a landfill unless~~ the liquid waste is a household waste other than septage.

   v. The containers are a bulk contaminated liquid food product (waste beverage, etc.) requiring disposal.

2. Absorbent material may be added, or dewatering accomplished ~~waste may be done~~, prior to placement in a landfill so that waste is not considered a liquid waste.

These provisions are derived from the current 2010 *Procedure Addressing Liquid Waste Disposal Restrictions in Municipal Solid Waste Landfills* and are not new requirements for landfill disposal of liquid wastes. The Secretary disagrees that there should be fewer restrictions on liquid waste disposal and that bulk contaminated liquids should be allowed without limitation on size or container type. No changes have been made.

§6-1005 (G)(3)(iii-vi): We do not believe that creating plans for the use of ADC, is necessary, rather a facility should submit a narrative which would satisfy the requirements of §6-1005 (G)(2). Similarly, we do not believe that creating a contingency plan would be necessary to plan for the event that the ADC material is unavailable, as a facility would simply revert back to using earthen daily cover as it had before. We also do not believe that it is necessary to provide a history of the materials' use as alternative cover at other landfills, the information provided to DEC for approval should be sufficient. Please see our revisions below.

iii. **An detailed operations narrative ~~plan~~ which demonstrates that the performance of ~~th~~ematerial will meet the performance criteria for alternative daily cover (detailed in 2 above);**

iv. **~~Specifications of the material, p~~Proceduresfor placement, thickness and weather condition s variation ~~during which the material can or cannot be used~~;**

~~Y. A contingency plan for the use of earthen daily cover in the event that the ADC material cannot be used, is not available or is not performing adequately; and~~

~~Yi. Any available documentation of the material's use at other landfills which addresses the materials performance and regulatory status.~~

These items are important for the Secretary's consideration of utilizing ADC. In some cases, earthen material may not be readily available and contingency plans would be essential in providing approval. Specifications on the proposed material and available documentation are also useful in the Secretary being able justify making a determination. These requests do not place an undue burden on the applicant and no changes have been made.

§6-1005(H)(1): We would like to propose that the requirement to notify the department within 24 hours be increased to 48 hours as in the revision below. The additional time will give the facility enough time to identify and manage an exceedance before notification.

Notify the department in writing within 48 ~~24~~ hours of determining the existence of an exceedance;

The notification of the Secretary should occur within 24 hours. Nothing prevents the continued investigation and management and the Secretary will then be able to prepare in a timely manner. Delaying the notification to allow for investigations provides no benefit and may serve to delay the overall timeline to implementation of a response to an exceedance. Notification within 24 hours does not place an undue burden or time commitment on the operator. No changes have been made.

§6-1005 (H)(3): We believe that the requirement for submitting results to the Secretary within 5 days should be changed, as there are occasions where we have not received the results of sampling until later than 5 days. Changing this to "upon receipt" would still require a facility to submit results when they are obtained. We also believe that the parameters required by xi and xiii of this section are not necessary as leachate can be detected by other parameters already listed in this section. Please see our revisions below.

3. **Sample and analyze the primary and secondary leachate for the following, with results submitted to the Secretary ~~within 5 days~~ upon receipt:**

   i. **field temperature, pH and specific conductance'**

ii. **chemical oxygendemand;**

iii. biological oxygen demand;

iv. total sodium and total chloride;

,Y ~~total arsenic, eadmium, ehromium, eopper, iFon, lead, manganese, mercury, nickel and zinc;~~

vi. Volatile Organic Compounds utilizing EPA Method 8260; and

~~**vii. Semi Volatile Organic Compounds utilizing EPA Method 8270;**~~

In review of this comment and others received on the landfill subchapter and these parameters, this subchapter is undergoing significant revision. The intent of these revisions is to provide better indication of the performance standards that the Secretary expects to be achieved and the corresponding demonstration required. This revision process is still underway and as such we cannot provide proposed language, at this time, but will incorporate the suggestions of this comment into those revisions.

§6-1005(H)(4): We believe that the term "detection" should be use rather than " leak", as at this point, leachate has only been detecting and it may not have been determined that there is a leak.

The Secretary disagrees. It is not specified that the fluid detected is leachate, but the detection of fluid within the secondary does indicate a leak of the fluid containment that should be in place.

§6-1005(H)(5): Casella would like to propose to extend the 14 day requirement to 30 days, as this will provide more time to assess the situation and prepare a plan for understanding and managing any detection.

The Secretary agrees and has allowed for a 30-day timeline to submission of a full assessment of the cause of the exceedance rather than requiring the earlier preliminary assessment.

§6-1005(I)(2): Surface Emissions Monitoring is already a requirement of the Title V Air Permit, and does not need to be replicated. Please see our revision below.

Surface Emissions Monitoring (SEM) shall be performed in accordance with the facility's Air Pollution Control Division, Title V Permit. ~~**for the detection of fugitive emissions, off-site migration of landfill gases and concentrations of landfill gases within structures on the landfill property. Monitoring shall occur as provided for** in **the facility certification and under an approved SEM plan.**~~

New Source Performance Standards are only required for facilities exceeding 2.5 million megagrams and 2.5 million cubic meters of permitted design capacity. The requirements of these rules would apply to all landfills including those falling below this threshold and would provide the Solid Waste Program with gas emissions information for understanding the management of landfill gas. No changes have been made.

§6-1006(A)(1): To be consistent with our previous comments on development soils, we would propose that DEC remove this section.

The Secretary disagrees, as previously discussed, and no changes have been made.

§6-1006(B)(5): We do not believe that a new requirement is necessary, as the FMP currently has a waste control plan already in place. Please see our revision.

Facility Management Plan ~~Waste Control plan~~ including, but not limited to, a description of how waste will be received and monitored, identification and management of wastes requiring special handling (friable asbestos, sludges etc.), and the program for detecting and preventing disposal of unauthorized wastes (random inspections etc.).

The Secretary acknowledges that waste control plans have typically been included within the Casella landfill applications within the FMP. However, these rules attempt to provide clarification and specification on the application documents that the Secretary is expecting for inclusion in any landfill application. Isolating this information into a separate plan, titled the Waste Control Plan, instead of including it within the FMP is not placing undue burden on an applicant. No changes have been made.

§6-1006(E): Casella suggests that this section is removed in its entirety. We should be held to the standards of the solid waste rules for groundwater monitoring. The Groundwater Protection Rule addresses drinking water protection and a landfill site cannot be sited in these areas. Additionally, any site with an old unlined landfill will find compliance very problematic.

The GWPRS sets groundwater enforcement standards that are based on, but separate from, drinking water standards. For these rules to obtain a general presumption of compliance from the GWPRS, and avoid reviewing each individual permit application under the GWPRS requirements, these rules must demonstrate compliance with the GWPRS and implementation of best management practices for protecting groundwater. The GWPRS implements the protection of all groundwater as a public trust regardless of its use as a drinking water supply.

§6-1006 (F): The term " Facility Management Plan" should be used in place of "operating plan" for consistency throughout the regulations, and to prevent any confusion on the plan required.

When a certification amendment is requested to authorize a change in the ~~Facility~~ Management Plans ~~operating plans~~ or facility design, the post-closure plan should also be amended as needed and according to the requirements of 6-1008(G-H) below.

The Secretary generally agrees. The intent was that any change within any submitted plans may require an amendment to other plans. The language has been changed to read '…authorize a change in the operations or facility design, the post-closure…." to clarify.

§6-1008(B): Does this indicate the state is requiring that post-closure care be performed indefinitely in the event performance standards aren't met? The post closure fund set aside will not last forever, where does the funding of

indefinite post-closure care come from?

Adjustments to post-closure care estimates and financial assurance requirements are proposed within §6-805. For private facilities, these proposed provisions require maintenance of a standing 30-year post-closure fund which the Secretary would have access to in the advent that the owner/operator were no longer able to fund needed post-closure care. This fund cannot diminish below the estimate required for 30 years of post-closure maintenance. Post-closure care is required to be sustained until the performance standards for custodial care can be demonstrated.

§6-1008(D)(1)(iv): Is this referencing methane – if so why not just say methane or are there other explosive type gasses generated at a closed landfill. If there are, what are they?

While methane is the primary constituent of landfill gas and poses the greatest explosive hazard, other landfill gas constituents are also flammable. These additional gases (e.g. ammonia, hydrogen sulfide, non-methane organic compounds) pose much less of an explosive risk as they are rarely found in landfill gases in concentrations above their respective lower explosive limits (LEL). The Secretary believes that landfill gas management is generally understood to be methane management; however, does not believe it is necessary to specify this in rule, thereby potentially limiting management of other explosive gases which may prove necessary in unusual circumstances. Additionally, federal requirements similarly utilize generic explosive gas management language within their requirements for landfill post-closure care.

§6-1008(I): This statement assumes that all closed landfills represent a "threat to public health and the environment". A lined, properly maintained landfill is designed specifically to not create a threat to public health or the environment. If the Permittee can demonstrate that the landfill in question has routinely and regularly demonstrated minimal negative impacts, then there should be a mechanism established to sunset any perpetual financial responsibility for post-closure custodial care. Please reference a section requirement for guidance as to how to demonstrate that a threat to public health and safety and the environment has been eliminated. Same comment as before – indefinite monitoring? How will that be paid for?

Although lined landfills are designed and operated to prevent leakage of leachate to the environment, there are other mechanisms of public health and safety or environmental impact that may occur (e.g. adverse geochemical groundwater changes from the landfill capping system). The post-closure care period is not only to evaluate for leachate leakage, but it is also to determine if there are any other adverse impacts from the landfill development, construction, operation and closure.

The mechanism to cease post-closure care management requirements is proposed to be custodial care. There is no financial responsibility requirement associated with custodial care or regulatory oversight; however, there is a requirement to continue sustainably managing the landfill to prevent an increase in threat (e.g. maintaining run-on/runoff systems and vegetative mowing). The custodial care performance criteria (§6-1009) describe what must be achieved to demonstrate candidacy for consideration for movement out of post-closure care and into custodial care.

§6-1008(I): Casella believes that this section should be revised to better match the requirements of §6- 1009 above, as revised below.

Upon written approval of the certification of closure from the Secretary, the Permittee shall implement the post-closure plan. A facility's post-closure care period shall continue until the ~~owner or operator can demonstrate that the threat to public health and safety and the environment has been eliminated.~~ The requirements for custodial care (§6-1009) have been met.

Agreed and corrected.

§6-1008(N): Does this require a new application to be submitted? Will there be a new post-closure certification term? We strenuously disagree with rescinding existing certifications. There is considerable expense associated with certification processes, and there is no mention of financial assistance from the Agency or from the State to offset these costs. A better option is to review all existing certifications, and require amendments to those certifications not meeting the new requirements.

The goal of the proposed changes within this subchapter for landfill post-closure care is to move away from a process of regulation by certification and into a post-closure care management period regulated by the criteria and conditions of these rules. No new application will be required to be submitted, rather the approved post-closure plan, cost estimates etc. of the in-place certification or court order, assurance of discontinuance etc. will continue to be the approved plans and regulation will occur under the requirement proposed by §6-1008(J-K). The goal is to eliminate the expense and burden of recertifying landfills in post-closure care on a regular five-year period and rather move to a system of changing the post-closure plans are needed and as indicated by the performance of the landfill.

In an attempt to clarify this intention, §6-1008(N) has been rewritten to read: '*At the point of this rule's promulgation, all owner/operators who have previously received a post-closure certification will have the existing certification will be replaced by the provisions of this subchapter and post-closure care management will be regulated under these rules and the post-closure plan, post-closure cost estimates and financial assurance instruments that are approved at the point of this rule's promulgation.*'

§6-1009(A-B): Casella would like to propose combining sections A and B, as everything listed in B appears to be demonstrating what is required by A. Please see our revision below.

A. In order for Post-Closure Care to be considered complete and a transition to custodial care considered, the owner/operator must submit a written request and be prepared under the direction of a professional engineer, licensed in the State of Vermont, and, a minimum, address the following performance criteria standards: ~~accompanying documentation to the Secretary that demonstrates that the facility is stable and poses no threat to human health or the environment without further maintenance or monitoring beyond the associated provisions of custodial care outlined in 6-1009(F).~~

~~This written request should be prepared under the direction of a professional engineer, licensed in the State of Vermont, and, a minimum, address the following performance criteria standards:~~

Agreed and corrected.

§6-1009(B)(1)(i and ii):

(i) Does that mean if constituents detected are stable over 5 years then performance criteria are met?

Yes, for the groundwater performance standard, this is one of the performance criteria that must be met in order to move into custodial care, the second (§6-1009(B)(1)(ii) must also be achieved.

(ii) indicates that contaminants cannot be detected above the GWES, MCL, or VHA standards to meet post-closure performance criteria. Does that mean that all existing site monitoring wells will need to be below

these standards to move into custodial care (contradictory of i) – even if it can be shown that existing onsite contaminate concentrations are decreasing and do not indicate transport off the site? Can the agency reference where to find the detection standards? Are these the same as the Vermont Groundwater Enforcement Standards (VGES)?

This requirement reads that contaminants do not reach or exceed a GWES (the same as a VGES), as established in the Groundwater Protection Rule and Strategy *"at a point of compliance"*. Both the relevant groundwater enforcement standards and a definition of the point of compliance can be obtained from the Groundwater Protection Rule and Strategy. For closed landfills the point of compliance is the property boundary of the parcel that the landfill is located upon.

§6-1009(B)(3)(i): No indication of PFOA testing.

§6-1009(B)(3)(i) does reference a demonstration of no groundwater enforcement standards (GWES) exceedances for a minimum of two consecutive semi-annual monitoring events. PFOA and PFOS have been adopted into the Groundwater Protection Rule and Strategy and do have respective enforcement standards within Appendix A of that Rule. The Secretary can require the testing of leachate for PFOA and a demonstration of stability or decreasing concentrations if it is detected.

§6-1009(C): Does this indicate that monitoring frequency can be modified as to extend out the costs of indefinite post-closure care?

Monitoring frequency, for post-closure management, can be adjusted at any point during the post-closure care period as described within §6-1008(F). A denial of approval for custodial care would mean continuation of post-closure care and adjustments to the post-closure care plan, including monitoring frequency would be considered.

Subchapter 11 – Compost Facilities

§6-1101(A): The term "diffuse disposal facilities" should be change to be consistent with 6-1101 (C) as well as Subchapter 13 where 'diffuse disposal' is phased out and replaced with ' land application'. Please see our revision below.

> **A. Notwithstanding the other requirements of these rules, this Subchapter applies to persons engaged in composting and organics management activities where the wastes being composted do not contain any amount of sewage sludge, domestic septage, or septage. Composting activities where the wastes being composted do contain any amount of sewage sludge, domestic septage, or septage shall be managed as Residual Management facilities ~~diffuse disposal faeilities~~.**

Agreed and corrected.

§6-1102(G): The final part of the last sentence of this section ' but shall not mean sewage, septage, or materials derived from sewage or septage' seems unnecessary, as these materials are prohibited from use as feedstocks in section §6-1101 (A). It would also be unlikely that they would be considered stable humus-like materials. Please see our revision.

> **"Composting" means the controlled biological decomposition of organic matter through active management to produce a stable humus-like material ~~but shall not mean sewage, septage, or materials derived from sewage or septage.~~**

The Program agrees with the comment that sewage, septage and materials derived from sewage or septage are listed in the prohibitions in Subchapter 6-1101(A), but feels it is appropriate to also list the prohibitions in the definition of Composting as well since the definition is specific to this subchapter.

§6-1102(J): Is the last sentence of this section implying that the tea may be aerated or that the tea is actually used for aeration? If the latter is the intent, how exactly does it accomplish that? We propose that DEC clarify this section.

> Agreed, the language has been revised to: *"Compost tea" means a product produced by mixing finished compost with water and incubating the mixture to make a product used for soil enrichment. Compost tea producers may actively aerate the mixture or add additives to increase the microbial population during its production."*

§6-1102(S): Delete "into soil"

Agreed and corrected.

§6-1102(T): The word "though" in this section should be replaced with the word "through", as in the revision below.

> **"Passively aerated" means inducing the flow of air through a freestanding compost pile or windrow.**

Agreed. The change has been made.

§6-1103(1): Add “or persons”

Agreed and corrected.

§6-1103(A)(1): At various places throughout this subchapter, inputs to the compost process are referred to as 'feed stock(s)' or ' feedstock(s)'. Casella believes the latter is the standard use and should be used exclusively.

Agreed and corrected.

§6-1103 (A)(2): In some areas throughout this subchapter, limits are specified as 'less than' (<), yet in other places as 'no more than' (≤). For the sake of consistency, one or the other should be used exclusively throughout.

Agreed. All references to “less than” have been changed to less than or equal to for consistency.

§6-1103(A)(3): Organic Specific Exemptions: *Food residuals when anaerobically digested provided that the residuals do not exceed five percent of the design capacity of the digester.*

Does this indicate that a compost facility anaerobically digesting material onsite, is exempt from subchapter 10’s rules if it only digests food residuals at 5% of the design capacity? OR - Does this indicate that anaerobic digestion in general is exempt from subchapter 10’s rules if food residuals do not exceed 5% of the design capacity?

If the latter is the case this would be incentive for on farm digesters to only digest food residuals at 5% of design capacity as to stay exempt from DEC regulation. Therefore, it may limit the amount of food an on farm digester wants to receive due to the farmer not wanting to go through a solid waste certification. Quick example (taking into account conservative assumptions) if a 1.8-million-gallon digester was limited to feeding food residuals at 5% design capacity – that would account for 586 tons of food residuals annually which minimizes the amount of food residuals that could be brought to on farm digesters. This limitation may influence the economics of developing an ORF designed to generate a liquid slurry.

The management of food residuals at an anaerobic digester are covered in Subchapter 12, as a result, this exemption has been removed from the draft rules. Apologies for the housekeeping error.

Anaerobic digesters that receive or tip any amount of food scraps are required to obtain a certification since the nature of the material itself can create public health and safety, environmental and nuisance concerns. The Program concludes that tipping or processing food scraps requires additional operational management measures via a certification. However, under the draft rules, anaerobic digestion facilities receiving *slurried* food residuals (i.e. food residuals liquefied beforehand by a separate and certified facility) need only obtain a registration – not a full certification.

§6-1103(3): Does this mean that if the 5% includes post-consumer, the digestate does not need to achieve PFRP?

This exemption has been removed on the basis of another commenters suggestion and replaced with management language within Subchapter 12 specific to anaerobic digestion.

§6-1103 (A)(3): Facilities located on farm that compost vegetative farm waste from a farm. This section contains redundancy as vegetative farm waste can only come from a vegetative farm. DEC may want to consider clarifying this section.

The distinction is that a farm composting vegetative farm waste may accept vegetative farm waste from another farm without obtaining a solid waste certification.

§6-1103: While there is a section on chicken feeding of food residuals, should a section on pig feeding of food residuals be included? For instance, on 11-5 (p. 103), feeding more than 60 chickens requires that the facility be regulated as a small composting operation, but what about a pig feeding operation? Would the same apply there? Although there is a guidance document on feeding food residuals to pigs, perhaps they need to be included in the Rules. Food residuals to pig farms seems to be more common in this area than food residuals to chicken farms.

The Program does not certify agricultural feeding operations, but we do certify solid waste composting operations. A significant difference between the chicken and pig scenario outlined in this comment is that it chickens can be allowed access to the outer layer of a solid waste compost pile with little impact on the process, while pig access would be massively disruptive to the composting process. The Program is attempting through these Rule revisions to allow non-disruptive access to the outer 6 inches of an active compost pile so long as there are no nuisances created and the public health, public safety and environmental protection provisions can also be met.

§6-1103(A)(14): Remove "no more than two (2) pounds of food residuals or less per bird, per day, "Insert: "as part of a compost-based feeding system" or equivalent text to convey this intent.

Since the Solid Waste Management Program does not have jurisdiction over animal feeding, we've adapted the Rules to allow for a farmer to provide chickens access to the outer layer of active solid waste composting piles in accordance with a valid Solid Waste Composting registration or certification issued by the Program. The subject of animal welfare and/or dietary nutrition falls under the jurisdiction of AAFM.

A chicken feed guidance document is currently under development that will supplement these rules. As such the language is subject to change; however, the "no more than two (2) pounds of food residuals or less per bird, per day" will not remain in rule and will be replaced with language that will better reflect intent.

§6-1104(A)(1)(iii) and (iv): Shouldn't the "and" remain in iii. and the "and" in iv. be changed to "or" since there will be facilities that don't feed chickens that this section should apply to?

The Secretary agrees with the change within item iv. to an "or" and the correction has been made.

§6-1105(D): Should "infiltrate" be "filtrate"?

It is not clear exactly what the commenter meant by filtrate instead of infiltrate, but to avoid any confusion "infiltrate" was replaced with "store". All structures used to treat or *store* leachate and run-off shall comply with the listed prohibited areas.

§6-1106: Section §6-1106 Compost Facility Design Standards is misnamed. It contains only design criteria related to runnoff and leachate management. See Subchapter 12 Organic Drop-Offs and Anaerobic Digesters (Section 6-1204) for more comprehensive Design Standards. DEC may want to consider renaming this section.

Run-on prevention, run-off prevention, pad permeability and leachate management must all be considered when designing a compost facility thus including those considerations under the "Compost Facility Design Standards" section of the Rules is appropriate. No changes have been made.

§6-1106(A)(2)(i): This is significant acreage required for leachate and runoff management. Can that acreage be actively fanned; e.g., hay production? DEC should clarify this section.

The principle is that the vegetative treatment area is designed for maximum nutrient uptake. The vegetative treatment area may be used for haying. It is important to remember that this condition

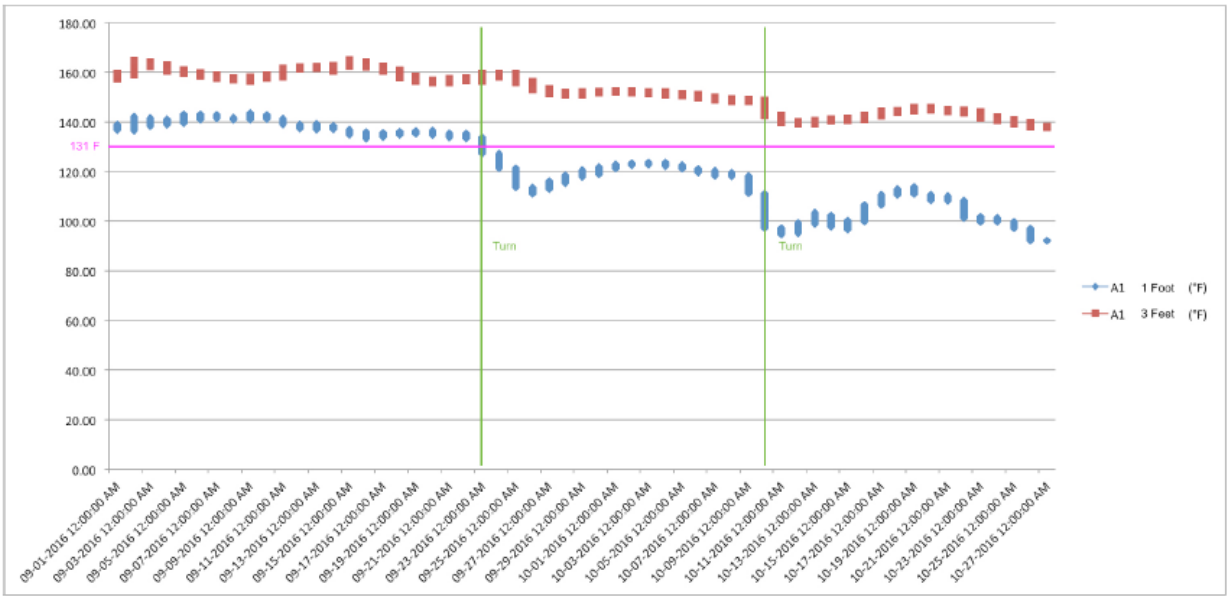
applies to small composting facilities only and other management practices are required for large or medium compost facilities.

§6-1107(A)(1): Shouldn't this section apply to medium and large facilities as well and the specifics for small facilities start with #2?

There are management methods that small compost registrations may use to manage leachate and run-off that medium and large compost facilities may not. Regardless, the point is noted, and language pertaining to liquid management prohibitions will be added for medium and large facilities.

§6-1107(A)(3)(i): Re: monitored on a daily basis during the treatment process

Daily monitoring for a turned windrow pile, while it might be informative at times, is unnecessary and overly burdensome. For an ASP pile, which can have wild temperature changes (due to aeration) daily monitoring seems reasonable, because the treatment period is only 3 days. For turned windrows, temperature changes are gradual and you can very safely assume that if it was ≥131 one day and ≥131 two days later that it was ≥131 for the time in between. Below is a graph of temperatures taken by data loggers in a turned windrow pile that illustrates this point.



My recommendation would be: **monitored ~~on a daily basis~~ <u>at least twice weekly during the treatment process.</u>**

Re: every five linear feet of windrow at the base of the windrow

First, temperatures should be taken at <u>mid-height up</u> the windrow. The base of a windrow is typically cooler – composters are trying to find the hot part of the pile, which is where treatment is happening. The cold parts of the pile are irrelevant, because it's assumed it will be turned into the hot zone.

Second, every five feet is too much. Temps at 1' and 3' in 4-5 places is enough to get a trust worthy reading. I would recommend: **every ~~five~~ <u>10-20</u> linear feet of windrow, <u>in no less than four locations,</u> ~~at the base of the~~ <u>midway up the</u> windrow.**

Although the Program maintains that a daily temperature reading regimen provides the best information about the windrow, it may not be completely necessary, and therefore the temperature frequency record keeping requirements have been reduced. The language of §6-1107(A)(3)(i) has been changed to the following:

i. *If composting food residuals, the temperature of the compost windrows shall be monitored ~~on a daily basis~~ at least every other day during the treatment process. The temperature should be monitored at one foot and three foot depths every ~~five~~ ~~liner~~ 10 to 15 linear feet of windrow ~~at the base of the windrow~~ while achieving the treatment standards established in §6-1107(D)(4) ~~subsection (j)(4) of this section~~.*

§6-1107(A)(9)(i): For leaf and yard waste composting, why is only horse manure allowed and other animal manures prohibited (sections 6-l 107(A)(9)(i) and (B)(11)(i)? DEC should provide some reasoning for this prohibition.

The Leaf and Yard Residual sections of the Rules apply to facilities that compost ONLY leaf and yard wastes (over 3,000 cubic yards a year). The requirements for these facilities allow for less frequent pile turning, and horse manure is specifically allowed because it has a favorable C:N ratio and should not be problematic at a reduced turning frequency.

§6-1107(B)(2): Casella would like to propose the addition of " and safety" to this section, to ensure that facilities will not create a threat to public health and safety.

The facility shall be managed to properly compost materials, destroy pathogens, not create a threat to public health and safety or the environment, and not create objectionable odors, noise, vectors or other nuisance conditions.

Agreed and changed.

§6-1107 (B)(11)(ii): The terms "one-part" and "three-parts" used in this section should have the hyphens removed, as the standard would be "one part" and "three parts".

Agreed and changed.

§6-1107(C)(6): Compost stability. *Finished products marketed or distributed for sale shall be tested for two of the following methods below:* at what frequency or volume generated for sale should the testing take place? Annually? Every 10,000 yards?

Each finished product shall be tested annually. The change has been made.

§6-1107(D)(2-3): References in these sections and §6-1108.B.5.v.f to the terms. 'non-compostable' or ' non-compostable materials' should be removed and replaced with 'contaminants'. Wood chips are technically non-compostable as they do not become humus-like in a normal composting cycle and could potentially be found in a feedstock, yet they are not contaminants. If this recommendation is not accepted, consider adding a definition for 'non-compostable', so that materials that are not contaminants but are also not compostable (but potentially beneficial) are not subject to the screening and removal requirements. See the following revision.

2. **Inspection of compost feedstocks. The compost feedstocks shall be inspected upon delivery to the facility and contaminants ~~non-compostable materials~~ either manually or mechanically removed. All non- compostable materials shall be disposed of at a certified solid waste facility.**

3. **Screening of finished compost. The finished compost shall be screened to remove contaminants ~~non-compostable materials~~. All non-compostable**

materials shall be disposed of at a certified solid wastefacility.

Wood chips do break down in a composting cycle, though at a slower rate. Subchapter 11 has a definition for "Compostable," therefore non-compostable would include anything outside that definition. No change necessary.

§6-1108(A)(1)(iv-v): We believe all references to solid waste planning entity' be changed to 'solid waste management entity' for consistency. Please see the revision below.

iv. A statement by the facility owner that a copy of the registration was sent to the municipality and to the solid waste management ~~planning~~ entity where the facility is located.

v. Prior to submitting a registration, the applicant shall obtain a letter from the local solid waste management ~~planning~~ entity that the facility is acceptable under its plan.

Agreed and corrected.

§6-1107(D)(4)(i): The 16 day time period is irrelevant to heat treatment for turned windrows. The treatment target is to maintain ≥131F for at least 3 days in between turnings, ensuring that all of the material hits that target. If it takes 30 days to ensure that all of the material hits 131F for three days, all the better, the material will actually be more completely treated with a slower process. The current language is too prescriptive and is very challenging for even the most skilled composters to achieve consistently in the wintertime in Vermont. If composters see the treatment standard as being unachievable, they are less likely to attempt hitting the target at all. I strongly recommend language that accommodates realistic cold weather scenarios, which means removing the 'for at least 13 of 16 consecutive days' language. I recommend adopting language similar to that of Vermont Organic Farmers, which originates from the National Standards Board. This is as follows:

(ii) the compost pile is mixed or managed to ensure that all of the feedstock heats to the minimum of 131º F (55º C) for the minimum time (3 days).

Source: Formal Recommendation by the National Organic Standards Board (NOSB) to the National Organic Program (NOP). NOSB Recommendation for Guidance: Use of Compost, Vermicompost, Processed Manure and Compost Tea. Nov 09 2006. P.3

Or

(ii) the compost undergoes an increase in temperature to at least 131º F (55º C) and remains there for a minimum of 3 days, and

(iii) the compost pile is mixed or managed to ensure that all of the feedstock heats to the minimum temperature.

Source: Vermont Organic Farmers Policy on Compost and Compost Production

This temperature treatment language was designed to be achievable by a wide diversity of composters and in my experience it is. It can also be done more economically, because the operator can make decisions on the pile's biological timeline rather than on an ambiguous regulatory timeline.

It is agreed that this requirement, as worded, is difficult for a windrow composter to achieve. To alleviate that issue, the Program has modified the wording to more closely resemble the approach used by

neighboring New England states for solid waste composing and by 40 CFR Part 503. The language in §6-1107(D)(4)(i) now reads:

ii. *If using a turned windrow system, the temperature must be maintained at 131 degrees Fahrenheit (55 degrees Celsius), or higher, for at least ~~13 of 16 consecutive~~ 15 consecutive days, during which time the materials must be turned no less than five times to ensure that all materials have spent at least 3 consecutive days at ~~reach~~ this temperature.*

§6-1108(B)(5)(ii-v): In general, the Application Requirements for medium (§6-1108 (B)(S)(ii)-(v)) and large (§6-1108 (C)(2)(i)-(iv)) compost facilities are the same and should be phrased the same. For example, both facilities require a Sampling & Analysis Plan for metals, maturity/stability, and bacteriological quality (6-1108 (B)(S)(v)(m) and 6-1108 (C)(2)(iv)(m).

The Secretary does not see substantial differences in the wording between these two sections. A more specific comment would be needed to make changes.

Subchapter 12 – Organics Management Facilities

§6-1201(A): To be consistent with Section§6-l l01.C as well as Subchapter 13 where 'diffuse disposal' is phased out and replaced with ' land application', DEC should consider the following revision.

> **Notwithstanding the other requirements of these rules, this Subchapter applies to persons engaged in organics management activities that do not constitute composting. The wastes being managed do not contain any amount of sewage sludge, domestic septage or septage. Activities where the wastes being managed do contain any amount of sewage sludge, domestic septage, or septage shall be managed as Residual Management facilities ~~diffuse disposal facilities as provide for~~ in ~~Subchapter 13~~.**

Agreed and corrected.

§6-1202(A): The regulations alternate between the terms "organic drop-off facilities" and "organics drop-off facilities". One should be selected and used exclusively.

Corrected throughout to 'organics drop-off facilities' for consistency.

§6-1202: Based on 5 years of successfully operating a food scrap drop-off facility at the Town of Vernon Highway Garage where WSWMD has its 24-7 recycling containers, I do not believe it is necessary to have a staffed facility, or locked containers. The use of security cameras, signs, and enforcement by Windham County Sheriff's Department, has virtually eliminated unauthorized use of the 2 two cubic yard dumpsters with water tights lids

An option has been added to rule for the applicant to submit a management plan for management of greater volumes.

§6-1202(A): I think the restriction of up to 128 gallons per week for Organic Drop-Off Facilities is too low and that 400 gallons should be considered (roughly the equivalent of 6 64-gallon carts) to make it more economical.

This requirement only applies to Organic Drop-off facilities, not to transfer stations. The premise of Organics Drop-Off facilities is that they are located in areas of the state where convenient access to food scrap disposal is lacking. Since all transfer stations will already be accepting food scraps, Organics Drop-Off Facilities are unlikely to be sited in a population dense area (because convenient access to a transfer station(s) already exists). Therefor Organics Drop-Off Facilities will be low volume collection locations.

§6-1202(A)(2)(i): It is significantly more expensive to collect food scraps in 64-gallon toters than the 2 two-cubic yard dumpsters which are emptied weekly with a front-load packer truck on an organics collection route. I respectfully suggest that the use of dumpsters up to 4 cubic yards capacity be permitted as long as they meet the performance standards.

The option to register an Organics Drop-Off facility is provided as a tool for districts to use to provide constituents convenient access to organics disposal if residential backyard, curbside pick-up and local transfer station options are inadequate. These are intended to be simple and small facilities. If a District wishes to exceed the toter/volume limit specified for an Organics Drop-Off, then they are free to pursue a standard transfer station certification to accept

additional volumes and materials.

§6-1201(A)(2)(ii): It is not practical to have a supply of sawdust or wood shavings to cover the food scraps at a site with no staff such as Vernon's. The users would either use too much, or spill the material on the ground. The inclusion of soild paper and cardboard with food scraps provides "appropriate absorbent material to maintain control of vectors and odors." We also have the hauler periodically exchange clean dumpsters in the summer.

Organics Drop-off Registration requirements need to be prescriptive in order to eliminate technical review. The sawdust provision in this section is geared solely towards organics drop-off registrations and not transfer stations. If an applicant deems this requirement too burdensome alternative moisture, nuisance and vector controls may be requested (as appropriate) in the transfer station application and associated facility management plan.

§6-1203(A)(1): That's all this section is saying? No reference to siting standards?

For these facilities, the potential for nuisance creation is the only siting criteria. If management practices are in place and sufficient to minimize nuisance conditions, there are no limitations on the location. However, the location of the facility will depend on the extent and practice of these management activities.

§6-1204(B)(1): Is this requiring that Drop-Offs be staffed and that facilities may not be open all the time? This does not address the case of a small hauler who collects food scraps from their customers and stores them in carts at their home for pick up by a larger hauler. I think this should be allowed. Carts are used by businesses and regular drop-off centers to collect food scraps now and they have lids but do not lock. Will all carts be required to be locked now? I think the lock requirement should kick in only if a site has issues. Would this provision apply to community composting sites where regular composting bins may be used at a public garden?

The Secretary acknowledges that requiring locking of these containers may not be necessary and the language has been changed to read '*secured*' which was the original intent.

§6-1202(B)(2): Consider defining unprocessed and processed

Definitions added to the subchapter.

§6-1204(B)(1): A requirement for locking is not necessary. These containers will be on a site likely having secured access. Please see the revision below.

Organics drop-off facilities may be located on sites that do not have secured access. These facilities may be located at public locations and purposefully do not have the same siting and access requirements that a fully certified facility under Subchapter 9 would be required to demonstrate.

§6-1205(B)(4)(i): *Solid portions of digestate must meet the treatment standards established in 6-1110(D) by composting or other treatment options prior to distribution off-site for non-farm use, unless adequate pathogen inactivation can be demonstrated.* 6-1110(D) is Compost Facility Closure and there is no section D.

Thank you for the comment. The citation has been changed to § 6-1107(D)(4).

§6-1204(B)(4)(ii): *If the facility is located on a farm, digestate that meets standards for pathogen treatment and*

contaminant content and concentration established by the Secretary or Secretary of Agriculture, Food, and Markets may be exempted from solid waste disposal siting and certification required where collection and land application occurs under an approved nutrient management plan prepared in accordance with Natural Resource Conservation Service Practice Standard 590 – Nutrient Management but is not authorized for use on crops for direct human consumption. What are the standards for pathogen treatment and contaminant content and concentration? This indicates that on farm AD digestate cannot be used on crop land that grows food for human consumption?

After consultation with the Agency of Agriculture and Markets, the language has been changed as noted below. The concern is direct contact with crops such as the recent E.coli contamination of spinach.

If the facility is located on a farm, digestate that meets standards for pathogen treatment and contaminant content and concentration established by the Secretary or Secretary of Agriculture, Food, and Markets may be exempted from solid waste disposal siting and certification requirements where collection and land application occurs under an approved nutrient management plan prepared in accordance with Natural Resource Conservation Service Practice Standard 590 – Nutrient Management ~~but~~ and, ~~is not authorized~~ for use on crops for direct human consumption~~; or~~, is applied in a manner that minimize the potential for contact with such crops, during and after application to such crops.

§6-1205(A)(2)(iii): Would you consider every two weeks in the winter months (when the food scraps will be frozen) with "or on a more frequent schedule as needed to preclude the creation of nuisance conditions"?

On the basis of this and other similar comments, the Secretary is making general revisions to the operating requirements for organic drop-off facilities. These changes are intended to better reflect the performance standards that such facilities are expected to achieve, rather than proscriptive timelines/requirements. You comment will be incorporated during this revision process.

§6-1205(A)(2)(iii): states that all food residuals will have to be removed from a drop-off facility every 7 days – just to clarify, if it is a mobile facility, the food residuals would have to be removed according to the same schedule as the trash removal?

This section is referring to organic drop-off facilities that are approved as stand-alone independent locations for the collection of organics, it is not referring to the exempt mobile solid waste collection operations. In order to maintain their exemption, mobile collection operations would have to remove all solid waste at the conclusion of their operating day.

§6-1205 (A)(2)(i)-(iii): The limit of no more than (20 64-gallon toters should be increased as this is a very low value and even customers may exceed this amount. We would like to suggest (20) 64-gallon toters, which is more reasonable and may be dictated by demand or by Act 148.

There is no need for wood shavings or saw dust requirements, containers are sealed with lids and may not be conducive with product mix, deodorizing agents will be added as needed.

Food residual storage should be emptied when needed, not within seven days, especially when site storage capacity and odors are not a concern or where volumes may be minimal. Please see our following revisions.

1. No more than twenty~~o~~ (20) 64-gallon toters or equivalent volume of organics will be stored on site at any time.

11. All food residuals stored at the facility shall be removed from the facility

~~at least every seven (7) days or on a more frequent schedule~~ as needed to preclude the creation of nuisance conditions.

These drop-off facilities are intended to be stand-alone facilities, not located at a certified solid waste facility. Therefore, the intent is to keep the facilities small in scope with limited materials on site and frequent pick-up to prevent nuisance conditions. The volume of material allowed at a drop-off facility is currently being discussed on the basis of this comment and others.

§6-1205(B)(2): We believe that more context is needed for this section, as it appears to be misplaced. DEC should consider revising.

The need to report signs of neurological disease derives from Federal requirements, language has been added to direct operators to the appropriate authority, the State Veterinarian, for reporting.

§6-1205(B)(3): Consider setting performance standards vs. design standards

Considered, Program has more comfort with design standards

§6-1205(B)(4)(i): How often do they need to demonstrate pathogen inactivation? Once, daily, monthly, yearly?

Once it has been demonstrated that the process provides adequate pathogen inactivation that will be sufficient.

§6-1205(B)(4)(ii): Is this saying that digestate that meets safety standards may be exempt from SW requirements, AND that the digestate cannot be used on crops for human consumption? If so, consider splitting this paragraph up into two parts. How was it determined that digestate cannot be used on crops for human consumption?

§6-1205(B)(4)(ii): <u>If the facility is located on a farm, digestate that meets standards for pathogen treatment and contaminant content and concentration established by the Secretary or Secretary of Agriculture, Food, and Markets may be exempted from solid waste disposal siting and certification requirements where collection and land application occurs under an approved nutrient management plan prepared in accordance with Natural Resource Conservation Service Practice Standard 590 - Nutrient Management but is not authorized for use on crops for direct human consumption·, or</u>

It is unclear why organic based digestate that meets pathogen treatment and other EQ requirements can' t be used to fertilize food for human consumption.

Language changed as noted

If the facility is located on a farm, digestate that meets standards for pathogen treatment and contaminant content and concentration established by the Secretary or Secretary of Agriculture, Food, and Markets may be exempted from solid waste disposal siting and certification requirements where collection and land application occurs under an approved nutrient management plan prepared in accordance with Natural Resource Conservation Service Practice Standard 590 – Nutrient Management ~~but~~ <u>and,</u> ~~is not authorized~~ for use on crops for direct human consumption<u>~~; or~~, is applied in a manner that minimize the potential for contact with such crops, during and after application to such crops.</u>

§6-1205(B)(4)(ii): Is the "standards for pathogen treatment and contaminant content and concentration established by the Secretary or Secretary of Agriculture, Food, and Markets" different than ANRs? If so, how?

No, the standards are the same.

§6-1206(A): Will existing drop off locations now need to register, or only new locations going forward?

Yes, all drop off locations will be treated as new facility types under these rules and will be required to register.

§6-1206(B)(1)(iv): This {*hours of delivery}* will certainly be variable.

Variability of hours will be allowable but the Program will require that the hours be stated.

§6-1206(B)(2): Why does processing waste at the site make it an ORF? Suggest evaluating the impact of classifying these facilities as ORF's.

The Program anticipates that facilities which process waste on site are closer in operation to currently certified solid waste transfer stations (as is the case in other states) and should follow that certification process.

§6-1207(A)(1) and elsewhere where reporting forms are discussed: Does form refer to paper only or does it include a web-based or electronic "form" as in ReTRAC, for example?

Although ReTRAC is the current service utilized for the digital reporting, it is a contracted service and potentially could change in the future. The generalized language of 'form' will remain to provide the requirement, but will not specify ReTRAC reporting.

§6-1207(A)(2): I recommend that the list of those to be notified be expanded to include SWMEs. Instead of "selectpersons", I recommend using "governing body" of the affected municipality since we have city council members and village trustees.

Agreed and corrected.

§6-1207(B)(1)(i): Suggest retaining consistency with §6-1205(B)(4)(i)

Consistency has been retained

§6-1208(B): *{materials}* Should this say feedstock?

Agreed, change made

§6-1208 (B)(3)(ii): This section appears to be a deterrent to anyone wishing to start up and Anaerobic Digestion facility. DEC may consider revising this section.

Agree, the existing language has been removed from these draft rules.

Subchapter 13 – Residuals Management Facilities

General: This rulemaking effort, as it applies to the management of residual wastes, is simply a placeholder action pending a more comprehensive rule revision effort under which the Secretary intends to create an entirely new set of rules dedicated solely to the management of residual wastes – sludge/biosolids, EQ biosolids, septage, wood ash, short paper fiber, and sludges from the biological treatment of certain dairy wastes. Once completed, hopefully in 2018, residual waste management will no longer be regulated under the Solid Waste Management Rules. As such, the current rulemaking effort, as it applies to the management of residual wastes, addresses only minor housekeeping issues. The residuals management program has recently initiated an internal/external working group to evaluate the current means of managing residual wastes and to provide recommendations for how they should be managed over the next 15 – 20 years. New rules are expected to be an outgrowth of the working group's efforts.

We appreciate the re-organization of the subchapters and the many minor clarifications and edits included in the proposed rules. We also applaud ANR on the incorporation into the rules of existing guidelines and procedures, such as those for wood ash utilization.

The Department intends to codify the Wood Ash Procedure and Short Paper Fiber Procedure into formal rules and to change some guidance aspects to formal rule as part of the development of dedicated residual waste rules.

We urge ANR/DEC to remove the requirement for groundwater monitoring at land application sites. Over the past several decades, ANR has collected copious data that show minimal to no impacts on groundwater from the land application of biosolids and septage. That there are no significant impacts is not surprising, because federal and state regulations, including required agronomic rates, are designed to protect groundwater. Any ongoing requirement for routine groundwater monitoring at land application (diffuse disposal) sites is a major disincentive to the recycling of biosolids and septage. This rulemaking is an opportunity to remove that requirement (e.g. 6-1306(N)). Why is a treated, tested product – biosolids – required to have this monitoring when other soil amendments and fertilizers do not?

While the Department recognizes that this is an added cost of managing biosolids and septage via application to the land, the fact that Vermont is one of the few states that requires groundwater monitoring at land application facilities also means that Vermont is one of the few states that can actually document that there are minimal to no adverse impacts. This issue will be considered by the working group.

The Agency has the authority to require groundwater monitoring on a site-specific basis, if the need is demonstrated (e.g. through 6-708) – just as it is authorized to do so in other situations. And the rules include other restrictions on siting of land application sites in Groundwater Areas I and II (e.g. 6-1306(H)) and require a three-foot separation from groundwater at the time of land application – providing plenty of conservative groundwater/drinking water protections.

While we encourage removing the requirement for groundwater monitoring for land application sites, we agree that groundwater monitoring around full certification and minor facilities may be reasonable, depending on facility design and operations. Those facilities manage much larger volumes of materials, whereas the amount of biosolids on a land application site is strictly limited. (NEBRA comment that RMI echoes)

While the Secretary does not dispute the commenters' statement that the wealth of groundwater monitoring data in the Department's possession documents the lack of adverse impacts on groundwater quality from the land application of residual wastes, having such information in-hand

provides a strong argument against positions that land application poisons groundwater. When considered in light of the PFAS groundwater contamination in the Bennington area, and the public scrutiny of any potential pollution of groundwater that situation has created, it is the Secretary's belief that any effort to reduce public information and awareness or to suspend established groundwater monitoring requirements would not be beneficial for the success of the land application program. It would adversely impact the use of, not only Class B biosolids, but exceptional quality materials as well. At this time, the Secretary is not supportive of removing groundwater monitoring requirements for sites where Class B biosolids or domestic septage are managed (the only facilities, besides in-ground storage lagoons, where groundwater monitoring is currently required).

We urge ANR/DEC to ensure that anaerobic digestion, composting, and other operations on property owned or leased by municipal wastewater treatment facilities are exempt from facility siting and other provisions of these rules. They are already regulated and should be allowed to take in any outside organics without further regulation. The one exception can be the rule's stipulations regarding production of EQ biosolids at wastewater treatment facilities.

There is nothing in the planned residual waste management rules that imposes any restrictions on siting biosolids management facilities inside the fence of an existing WWTF, and any facilities constructed prior to the promulgation of the original solid waste rules in 1989 are already specifically exempted from the siting criteria. However, it must be kept in mind that a waste product containing or is derived from any amount of domestic waste is regulated under 40 CFR 503, and it is the Secretary's belief that co-mingling waste streams does not make economic sense based on the testing required of biosolids products. Regardless, there is nothing in the rules that would prohibit co-management of waste streams provided the operator is willing to assume the additional monitoring costs. In fact, the Secretary is currently working with the Lamoille Regional Solid Waste Management District and the Village and Town of Johnson to restart the Village's biosolids composting facility to achieve that end. However, it should be noted that current plans are to not co-mingle the waste streams, but rather to compost them separately at the same facility which will be converted from windrow technology to aerated static pile technology.

We urge ANR/DEC to revise the concentration limit for arsenic (As). In 1107(A)(2)(vii), 1107(B)(8), and 1306(M)(1), the ceiling concentration for arsenic (As) in composts, biosolids, and septage is set at 15 mg/kg. This is a challenging concentration to meet and is extremely conservative, significantly lower than other states. Biosolids naturally bind elements like As, as long as pH is maintained and the biosolids are reasonably well managed. The low As limit serves as an unnecessary deterrent to land application of biosolids. Native, natural geology and water quality in Vermont creates wastewater sludges from solely domestic sources that are challenged to meet this standard. We believe any potential incremental environmental or public health benefits from this strict As standard would be outweighed by having more local biosolids recycling, which would reduce air emissions, sequester more carbon, be more sustainable, etc.

The 15 mg/kg standard was promulgated following guidance from the Department of Health (DOH). DOH's concerns were based on the lack of information on the speciation of arsenic in biosolids. Since that information did not exist at the time the standard was implemented (and the residuals management program is unaware of any existing today), DOH opted to consider that all arsenic in biosolids exists as carcinogenic inorganic arsenic compounds and calculated a limit based on the carcinogenic potential, rather than on non-cancer toxicity of organic arsenic compounds as is the basis of the arsenic standard in 40 CFR 503. DOH actually determined that the appropriate cancer risk based standard would be 10 mg/kg, but since (at that time) labs could not reliably achieve a detection limit of 10 or less in a biosolids matrix, DOH accepted the limit of 15, which labs could routinely quantify. This will be considered further during the dedicated residuals management rule making process.

We urge ANR/DEC to reconsider the removal of Class A alternatives 3 & 4 pathogen reduction (either fecal coliform <1000 MPN/g solids dw or *Salmonella sp*. <3 MPN/ 4 g solids dw and enteric virus <1 plaque-forming unit / 4 g solids dw) and helminth ova <1/ 4 g solids dw). While we understand the Agency's concern about allowing "testing out" of treatment requirements, there are some biosolids and other sludges that are safe for use on land but have not gone through a full pathogen treatment process. There should be some way to test for and verify their quality and allow for their recycling to land. Take, for example, sludge from a lagoon that has been sitting, with no additions, for ten years. Will an expensive treatment process be required to allow local recycling of that material? Currently, there are two facilities in the state (Brattleboro and So. Burlington) that have invested millions of dollars in advanced treatment processes, yet ANR/DEC continues, several years later, to require repetitive, costly testing (such as is done under Class A alternatives 3 & 4!) before the biosolids can be used. As with the arsenic issue, ANR/DEC is trying to reduce very small risks through duplicative measures in the biosolids regulations, while, for example, animal manures, which have orders of magnitude more pathogens, are hauled around and applied here and there with relatively little guidance and oversight.

The Rules clearly allow the Secretary to accept alternate demonstrations of pathogen reduction that have not been included in 40 CFR 503 or vetted by the PEC, albeit the Department would likely do so only in extenuating circumstances. However, since there are no lagoons in Vermont where there are no additions over even short periods of time (currently, they're all treatment lagoons which constantly receive fresh sewage), this point is moot.

The Department only requires this testing (such as is done under Class A alternatives 3 & 4) because it is a requirement of the Conditional National Pathogen Equivalency Determination issued by the EPA's Pathogen Equivalency Committee (PEC) for the processes that the municipalities selected (2PAD). These municipalities were notified that the certification would require all testing required under that equivalency determination until it was converted to a Full National Pathogen Equivalency Determination, at which time the requirement to test for viable helminth ova and enteric viruses in addition to fecal coliforms or salmonella s.p. will no longer apply. Those municipalities were adequately forewarned of this matter very early in the project development schedule, yet still opted to go with 2PAD technology. The Department will not override a PEC determination.

If ANR/DEC will not accept the above arguments, we urge consideration of enhanced Alternatives 3 & 4, options with more thorough pathogen testing, including, for example, not only indicator species, but also several actual pathogens known to be persistent. (NEBRA comment that RMI echoes)

40 CFR 503 does allow the "permitting authority" (ANR in Vermont) to accept alternative demonstrations of pathogen reduction. However, Vermont lacks the staff resources and the expertise to evaluate alternative processes to the extent that EPA's PEC possesses, and has historically deferred to EPA's established process for obtaining such determinations. The Secretary intends to maintain that position.

Specifically, in regard to Class A Alternatives 3 and 4, Vermont only accepts the four 40 CFR 503 alternatives (Class A: Alternatives 1, 2, 5, and 6) that do include process based treatment requirements and that do not recognize the use of viable helminth ova or enteric viruses as indicator organisms. Vermont has adopted this approach for two main reasons: 1) the Secretary believes that in order to further assure pathogen kill, treatment in a process based on a time/temperature relationship or chemical environment necessary to assure pasteurization is requisite, and 2) recent research has shown that the density of viable helminth ova and/or enteric viruses in raw sewage is commonly sufficiently low such that it can meet the Class A standard absent any treatment for pathogen reduction. In other words, the Secretary believes that a demonstration of the absence of these organisms in treated biosolids, when they might not have been present in the raw sewage, is not a valid demonstration of the degree of pathogen reduction achieved by the process. In fact, EPA itself is considering deleting Class A: Alternatives 3 and 4 from the 40 CFR 503 regulation over those same concerns, primarily in relation to the issues surrounding the presence/absence of viable helminth ova and enteric viruses in raw sewage,

which can result in the need to seed systems with these pathogen indicators ahead of the pathogen reduction treatment process in order to obtain usable data on the level of their destruction. The Secretary will not approve any process that requires seeding helminth ova or enteric viruses (or any other pathogen indicator organisms) in order to have sufficient densities in the raw sewage for the ability to make a compliance demonstration in the treated biosolids.

Address nuisances as through existing no-significant nuisance provisions. The proposed regulations continue and augment the stipulation that no solid waste management facility or activity shall create a nuisance. This includes landfills, compost facilities, and land application sites. The rules even generally require reporting of a nuisance with 24 hours (e.g. 6-1109(C)). The management of organic residuals, including biosolids, can occasionally produce malodors. Defining in regulations what constitutes a nuisance malodor is challenging and adds complexity. Rather than get specific in each instance, in the current and proposed rules, ANR/DEC has properly chosen to rely on numerous general statements regarding avoiding nuisances. We appreciate this approach.

There are, however, a few places in the regulations where measures are proposed that address nuisances in more prescribed ways. To be consistent, any such specific measures in the proposed rules that are intended only to prevent nuisances should be deleted, so as to reduce impediments in the marketing and distribution of managed materials (for example, recycled biosolids and organics). ANR/DEC would then rely solely on the numerous statements in the proposed rules regarding nuisances that allow ANR/DEC to enforce if a material or facility emits excessive malodors.

This comment suggests that *"specific measures in the proposed rules that are intended only to prevent nuisances should be deleted,* ***so as to reduce impediments in the marketing and distribution of managed materials****"*; meaning that marketing and distribution take precedence over the publics' expectation that they should be able to live their lives without having to endure avoidable nuisance odors. The Department believes that regulations should be designed to protect human health and wellbeing, rather than protecting from relatively minor business "impediments" and that regulations should be designed to include requirements intended to avoid the creation of nuisances, rather than creating the necessity to enforce against them once they occur.

Here is an example of a specific requirement that should be deleted: the ambient temperature requirement for compost. Any bulk pile of organic material may continue to heat some internally for a long time; that is an indicator of valuable biological activity and nutrient density, which are indicators of agronomic value. The ambient temperature requirement is likely intended to address concerns about malodor. Rather than using a surrogate to try to get at this concern about potential malodor, please address malodor concerns directly by relying on the numerous existing statements prohibiting nuisances. Delete the "ambient temperature" requirement; it is just one more excessive requirement that stymies organics recycling.

If ANR/DEC chooses to ignore the above suggestion, then it should consider adopting overarching, science-based odor regulation for all kinds of facilities and operations, utilizing objective measurements at property boundaries, etc. This would increase the regulatory burden. But at least it would create a clear and level playing field.

To reiterate this concern: ANR/DEC staff have noted that unstable composts have caused odor issues. That is true, and it is unfortunate. But odors are the issue, not the particular nature of the material. Other composts with similar malodors have been put to use without any complaints. They were better managed. Just as with Class B biosolids or food wastes, significant malodors should not be tolerated. But by requiring "ambient temperature," the regulation throws the baby out with the bath water. Some more odorous biosolids, composts, and food waste residuals can be properly managed and used on more remote sites or in other ways. If odors are the issue, then address that issue head on with odor standards. Then allow those managing organic residuals the latitude of meeting those odor standards. Or, allow them to meet the numerous "no nuisance" statements sprinkled throughout the current and proposed solid waste management rules.

The Secretary does not agree with the comment that *"odors are the issue, not the particular nature of the material"*, as it is the particular nature of the material (uncured or unstable) that causes the

odors in the first place. Regardless, the Secretary intends to allow a waiver of the ambient temperature requirement on a case-by-case basis, for specific uses, in the planned residual waste management rules. However, Vermont has experienced several instances where uncured composted biosolids have created excessively obnoxious odors that were physically nauseating for as far as two miles from the site of use and that generated several hundred complaints to the Department necessitating the expenditure of significant staff resources to address. The alternative option of curing to ambient temperatures would be to require one of the more expensive and time consuming compost stability tests to be conducted (except on the case-by-case basis already intended to be provided).

7. **Public notification and comment.** Our understanding of the proposed regulation is that the most significant public review of solid waste management activities is provided during the development of Solid Waste Management District (or other entity, SWME) solid waste implementation plans.

This is the most appropriate time for significant public input, and we applaud this arrangement.

We urge ANR to insist that SWMEs fully address biosolids and other organics in their Implementation Plans, so that the public becomes well-informed regarding the needs and possibilities regarding the management of all organic residuals, including biosolids.

In general, SWMEs only establish overarching policy for waste management in their regions, and public input is an important part of developing solid waste implementation plans (SWIPs) in relation to acceptable management practices. The SWIPs developed by SWMEs are only required to approve of specific facilities existing at the time they are developed and adopted. SWIPs virtually never go to the extent of actually siting proposed facilities. SWIPs generally approve/disapprove of various waste management strategies and can establish prohibited areas beyond those delineated in the Rules. It is not until a new waste management facility approaches the permitting phase that SWMEs must formally recognize the facility in their SWIP by formally amending that plan. Therefore, the Department considers that immediate public concerns at that point in time are of critical importance in the siting and operation of specific individual facilities for projects involving management strategies that are acceptable under SWIPS that may have been developed and approved years in advance of siting and design of the facility.

We further understand that ANR will likely hold public meetings regarding applications for full facility certifications (large facilities). This seems appropriate. However, we would object to required public meetings for every minor facility or land application site. Public meetings at that level are less productive than public involvement and comments during the development of Solid Waste Implementation Plans.

Public meetings are not a *de facto* requirement of the certification process and are only called when requested in accordance with statute or when the Secretary has foreknowledge that a meeting is highly likely to be requested. The procedures for public noticing and holding public meetings are provided by statute, 10 V.S.A. Chapter 170, and these rules cannot contradict statute.

We find the public comment requirements in facility siting processes to be unclear. It appears that, for full facility certifications and minor facility applications, notification of adjoining landowners is required and ANR provides comment periods and responses to comments. The required notifications to adjoining landowners are to include description of "opportunities for public participation and comment on the application." These "opportunities" are not clearly delineated – except that it appears to refer to ANR's review process detailed in subchapter 6. We assume that ANR will provide clarification to those who must notify adjoining landowners regarding what needs to be included in that notification regarding "opportunities for public participation and comment."

And here is one small item to consider correcting: The words "hearing" and "meeting" appear to be used

interchangeably in the draft rule. Consider using just one or the other, to avoid confusion. And note that neither term is formally defined.

The public notification and comment requirements and language are established in statute. The Rules simply mimic statutory language which is beyond the Department's authority to change or circumvent. However, the Secretary agrees that consistent use of hearing and meeting would provide clarity; however, it should be noted that the use of 'hearing' remains within §6-607 in the discussion on suspension and revocation of certifications and registrations and the progression of reviewing a suspension or revocation.

8. **The proposed rules do not require reporting of EQ biosolids imported into Vermont.** This is appropriate. It would be challenging to require Milorganite, for example, to report what enters the state, and some such requirements might be legally challenged. High quality EQ products are widely marketed and distributed in interstate soil amendment markets and pose no greater risk than similar common products. This is true not only for many EQ products in bags, but also high quality, customer-pleasing EQ products distributed in bulk. Again, as ANR/DEC considers additional regulations, requiring registration and reporting of EQ biosolids products entering the state, consider what other similar products are or are not being so monitored, such as food and seafood composts, lawn and manure products, and mulches. What incremental benefit is gained by imposing another requirement that discourages recycling?

The Secretary fully intends to implement an approval and reporting process for EQ biosolids that are produced out-of-state and subsequently imported into Vermont. Under the current rules, Vermont does not track the volumes and quality of imported EQ biosolids, and does not have the authority to require out-of-state EQ biosolids to meet the Vermont pollutant limits that in many cases are more restrictive than those of the jurisdiction in which the EQ biosolids are produced. For example, Vermont does not believe that it is appropriate that EQ biosolids that can contain up to 41 mg/kg arsenic (as allowed under 40 CFR 503.13 – Table 3) can be imported into Vermont when Vermont facilities are held to a standard of 15 mg/kg.

Secondly, simply because an out-of-state generator of EQ biosolids is "big" or that obtaining an approval would be "challenging" is no reason to back down on an issue such as this, and will afford the Secretary the opportunity to examine process monitoring data to verify compliance. In fact, at the insistence of the State of Delaware and the Department, EPA has recently initiated an enforcement investigation into one of the nation's largest producers of EQ biosolids over the fact that for years they have not been meeting the Class A alternative it purports to be meeting. Absent any review and approval process (which, in Delaware, is what initially uncovered the issue) and on-going reporting, such compliance matters far too frequently go undetected.

Clean wood by-products should be included as a general term onto the acceptable high carbon bulking agent.

The Secretary will consider this comment, but clarification of what constitutes "byproducts" needs to be provided.

In a general comment, it is unclear if the land application rules apply to the use of Class A EQ biosolids. For example, the land use restrictions listed in Section §6-1306 K apply to Class B land application sites, per US EPA 40 CFR 503. No distinction is discernable in these rules

AS currently written, the only part of the Rules that pertains to EQ biosolids is the language that affords them an exemption to the Rules.

Suggested Definitions: *"Diffuse Disposal Facility"* should be replaced with "Land Application Site" throughout the Solid Waste Regulations

"Disposal" RMI recommends "beneficial use" to replace "disposal" for land application biosolids through the rules.

"Exceptional Quality (EQ) Biosolids" RMI Recommends allowance of alternatives 3 and 4 to be consistent with the federal regulations.

The Secretary intends to make as many of these changes as possible in the residual waste management rules that will be developed, with the exception being the inclusion of the Class A alternatives 3 and 4 within the definition of exception quality biosolids.

§6-1302(B): Recommend increasing the net weight from 50lbs up to 2000lbs to enable the use of agricultural super sacs. These 1-ton sacs are used by golf courses and athletic fields with Milorganite and other fertilizers.

The Secretary is trying to differentiate between bagged and bulk distribution as envisioned under 40 CFR 503. One ton agricultural super sacs do not fit with the concept of a bagged material. In general, if an average person cannot lift the container, it's being distributed in bulk and won't be afforded an exemption.

§6-1305: The introductory sentence to this section should also reference the requirements for Residuals Management Facilities, as below.

In addition to the general siting requirements of §6-704, and the Residuals Management Facilities-specific siting requirements in 6-1304 the following facility specific design standards apply:

§6-1305 addresses the design standards. The Secretary acknowledges that the introductory language is incorrect, but disagrees with the proposed changes and rather has changed it to read: *'In addition to the general design requirements of §6-704 the following facility specific design standards apply:"*

§6-1305(B)(1)(iv): The term " composing" in this section should be replaced with " composting".

Agreed and corrected.

§6-1305 (C)(1): Use of the word "waste" should be replaced with biosolids, septage, or residuals when referring to these materials.

The Secretary intends to make as many of these changes as possible in the residual waste management rules that will be developed.

§6-1305 (C)(2): In this section and in 6-1305 (D)(3), the term "disposal" should be replaced with the term "land application" as in the revision below.

Design documentation shall detail each land application ~~disposal~~ site with respect to soil character, cropping practices, usable area, floodplain and seasonal restrictions, application area and rates, and site life, as these affect the management of the facilities.

Agreed and corrected.

§6-1305(D): Use of the phrase 'waste piles' should be replaced with stockpiles.

The Secretary intends to make as many of these changes as possible in the residual waste management rules that will be developed.

§6-1305(D)(1): Waste pile storage areas shall must be of adequate volume to contain the waste in accordance with the generation, transport and disposal schedule contained in thefacility management plan.

Unless there is a statutory definition for the term ' waste pile' that must be used in the rules, it should be replaced with the term ' stock pile' or ' material stock pile'. Once a material has a defined beneficial use and is intended to be used in that manner, it should no longer be referred to as waste, although waste-derived material would be applicable.

The Secretary intends to make as many of these changes as possible in the dedicated residual waste management rules that will be developed.

§6-1302(D)(2): Stockpiles of biosolids should not be covered with an impermeable fabric as this can create horrendous odor events when the cover is pulled off and the biosolids are land applied. Recommend that stockpiles should be managed to minimize water run-on or run-off of the piles. In NH stockpiling is allowed for up to 8 months with minimal concerns about impacts to groundwater. The only time covering a stockpile is warranted is for odor which would make covering the piles with wood ash, sawdust or lime necessary.

Stockpiling of biosolids at land application sites is prohibited except for short term staging prior to application to the land. Stockpiles, in and of themselves, are not the problem. It is when they are broken into after long periods of storage that odors generally become an issue regardless of whether or not they had been covered for the period of storage; and at that point, no amount of wood ash, sawdust, or lime will mitigate the situation. This prohibition was implemented in direct response to numerous odor problems that resulted from breaking into stockpiles at land application sites that had been sitting uncovered over the winter months and the odors that persisted for as long as two weeks after the stockpiled biosolids were applied to the land with incorporation. This prohibition will not be deleted or changed.

§6-1302(D)(3): Limiting storage to 2 weeks is logistically difficult to meet and is not consistent with Best Management Practices of manures. It is recommended that stockpiling be allowed for up to 8 months annually.

Simply because AAF&M allows up to 8 months' storage of manure does not connote that the Secretary agrees with that allowance. The Secretary is not aware of any land application programs in Vermont where this restriction has created logistical problems, and as such has not made any adjustments to this requirement for biosolids storage.

§6-1305(B)(1)(i): Recommend that the process to further reduce pathogens as defined in 40 CFR Part 503.32(a)(5 and 6) should be included. This is approved at the federal level and should be accepted and used at the state level. Removal of these alternatives provides economic hardship and provides no increased protection of public health and the environment.

The Secretary does not see any economic hardship associated with not recognizing Alternatives 3 and 4, other than the increased pathogen density monitoring costs. The two impacted municipalities to which this applied, were more than adequately forewarned as to what was required under the conditional Pathogen Reduction Equivalency Determination. See the previous response to this comment.

§6-1305(B)(4): Does this suggest that there will be a formal certification required for EQ biosolids imported into Vermont.

A no fee, no public process Certificate of Approval to import EQ biosolids into Vermont will be issued following review. The Secretary has no legal authority to issue a facility certification to an out-of-state facility and fees can only be established by the legislature.

§6-1306 (D)

The pH of the soil in the zone of incorporation for all sites used for application of solid wastes shall be maintained between 6.5 and 8.0 during the time of application, unless the pH of the waste is 11.0 or greater at the time that it is applied to the land.

We would like to understand the rationale for maintaining a minimum pH of 6.5 on agricultural land that will be used for the application of residuals. This pH may fall outside of or be at the top of the range in which certain crops perform best. If the concern is with metals mobility, the metals concentrations of most residual products has declined significantly in the last 3 decades, due in large part to the Industrial Pretreatment Programs that POTWs have instituted. As long as the metals concentrations of the residuals meet the standards in 6-1306.M.2, the pH issue should be irrelevant.

pH induced mobility of metals is not a function of their concentration and the cited ranges is generally optimal for agricultural fields.

§6-1306(K)(1): Public access should be controlled during land application of biosolids as well as for the 12 months after based on private property and no public trespassing.

The proposed language does not establish how a permittee must control access. "Private Property" and "No Trespassing" postings are simply two means to that end, as would be fencing or other physical restrictions. The Secretary has made no changes to the proposed wording in order to maintain flexibility and provide options for permittees.

§6-1306(K)(5): Should be deleted. This is excessive and covered by (K)(4) above

The Secretary will consider this in the dedicated residual waste management rules that will be developed.

§6-1306(L)(2)(a): A closing parenthesis is needed for Arsenic in this section.

Agreed and corrected.

§6-1306(L)(4)(i): In this section, the term " Phosphorous" should be replaced with "Phosphorus".

Agreed and corrected.

§6-1306(M): DEC may want to revise the leading sentence of this section for better readability.

Agreed and corrected

§6-1307(E)(1): The colon should be removed from the start of the sentence and 'results' should be replaced with ' result' .

Agreed and corrected.

§6-1308(A): Having commercial haulers of sludge or septage complete reporting every quarter appears to be repetitive when the wastewater treatment plants and owners of companies that manage septage are also reporting. EQ biosolids should not be included in the reporting requirements. Such products are widely marketed and distributed in interstate soil amendment markets, pose not greater risk than similar common products.

See the previous response in regard to reporting of EQ biosolids.

Commercial haulers are required to report for a variety of reasons. First, it serves a data validation function by allowing the Department to compare what a hauler reports versus what the end management facility reports. Vermont has caught and prosecuted several haulers who were illegally disposing of septage by comparing WWTF and hauler quarterly reports. Second, 3 V.S.A. §2282 (j)(33) implements a fee of $10/1000 gallons of septage managed (on all septage generated in Vermont regardless of where it is disposed and all septage disposed in Vermont regardless of where it was generated), and it is the commercial haulers who have the data to subtract wastes not subject to the fee (sludge, portable toilet waste, FOG, etc.) from the total volume of wastes managed in order to calculate the proper fee due; and the data validation aspect of the reporting requirement helps the Department assure that fees are properly calculated and paid. Since those fees are the sole source of funding for the residuals management program, quarterly reporting assures that the cash flow necessary to fund on-going operations exists.

Subchapter 14 – Regulated Medical Waste

§6-1402(F): Thermal indicators are no longer used. Most facilities use parametric monitoring, such as time, temperature and pressure read out from equipment that is continuously monitored and usually recorded (could be a circle chart or taper print out). We would request that the thermal indicator be removed. This definition also has a condition "*performed within 40 hours of operation or once a week*". This should be under the operating section not part of the definition. Also this statement should dictate when each time frame should be used (i.e. whichever time frame is longer). The challenge test definition should identify what the ANR sets as the condition and the amount of time tested should be part of the operations plan or under section 6-1404 D. 1. ii. d.

After reviewing this comment and other comments, it was determined that the Rules were not addressing the current practice of the medical industry. Given the length of time between approvals of Rules, the technology specifics on treatment will be left to the medical industry. The intent of the Rules is that the waste is treated to an accepted level of decontamination by the medical industry.

§6-1402(D)(2) and (E), §6-1404(E)(3) and (F)(2), and§6-1407(A)(13): Treated medical waste: Once treated, medical waste no longer presents an infectious waste risk; it is no longer considered a hazardous material under DOT PHMSA regulations and should not be managed as such. We understand that ANR would want the receiving end disposal facility (i.e. landfill) to know that the waste coming to them is not infectious any longer; however this can be accomplished by a simple bill of lading that has the necessary information on it, as it is done today in most other states. A separate Certificate of Treatment or written alternative isn't necessary. Most landfills require a profile of the waste prior to letting the waste in so the facilities would know that there is treated medical waste being sent to them. We recommend that this requirement of the certification be removed and that the bill of lading be implemented.

Comment Noted. As of now the state of Vermont has only one receiving facility and the state has not received any negative comments on the certificate of service requirement. It is also noted that this reference was incorrectly numbered.

§6-1402(G): We recommend that this be clarified to be "trace chemotherapy waste". Most states and for most facilities, chemotherapy waste is interpreted as bulk, meaning remains that are likely to be larger in quantity and likely to be a hazardous waste. Instead, the word(s) "trace" or "RCRA Empty" is more often used when referring to the types of things listed in the definition, like PPE, empty IV bags, vials etc.

After the review of this comment and other comments, it was agreed that the Rules should be addressing trace chemotherapy waste only. Further review will be done to determine to what extent the Rules should address this type of waste given that bulk chemotherapy waste likely falls within the hazardous waste regulations.

§6-1402(K): The long term care, hospice and school nurse/health room were removed from this definition however are not addressed anywhere else in the regulations. Is it the intent of the department that they are not regulated? Or is it the intent of the department that these facilities fall under "Home Generator"? We would recommend that this category of generators still be addressed as they do often generate regulated medical waste and pharmaceutical wastes.

How the medications are purchased and administered will determine the category they fall under. After review of this comment, it was found that these areas of medical generation were removed in error and they will be addressed in the small quantity generator category of the Rules.

§6-1402(K): HEALTHCARE: Other than this mention in the definition of "Home Generator" ANR does not state anywhere else how pharmaceuticals are to be managed for healthcare. We would recommend that the ANR consider providing additional

guidance for the proper management of pharmaceuticals (hazardous and non-RCRA) generated by healthcare facilities as defined under this rule (section 6-1402 K.). EPA guidance (EPA Best Management Practices for Unused Pharmaceuticals at Health Care Facilities - EPA Office of Water; 2010 –EPA BMP), recommends pharmaceuticals not be autoclaved due to the potential impact on wastewater. Stericycle requires identification and segregation of waste pharmaceuticals per our Waste Acceptance Protocol. This is because most regulated medical waste (approximately 80%) is treated through autoclaving. Therefore, we require this identification and segregation so that these wastes can be sent for incineration; however, non-RCRA pharmaceuticals can be comingled with other regulated medical wastes that have been identified for incineration. There are several state regulations (CA, CO, WA for example) that require incineration of non-RCRA pharmaceuticals already and Stericycle will continue to promote incineration as the best management of pharmaceutical wastes.

Healthcare Facilities will be revised to reflect the EPA guidance.

§6-1402(N): This is used under the Home Generated waste section. This would be beneficial to specify that in the definition. This would not be a reasonable requirement for commercial generators or treatment facilities. This requirement would also stop commercial treatment facilities from disposing of needles at landfills within the state of Vermont.

To clarify, the term 'inaccessible' is mentioned in the Treatment and Disposal requirements and not the Home Generator section. The term is used in the discussion of treated medical waste and the Certificate of Treatment.

§6-1402(P): This is not clear and too broad, and also is not used anywhere else in the document. It is not clarified how it must be managed, if necessary, differently than other wastes etc. Also by not having at least a referencing regulatory agency (Centers for Disease Control or Vermont Department of Health), who would be the authority on what is a "dangerous communicable disease"? We understand this is a challenging subject. Most recently the Kansas Department of Health and Environment held meetings with stakeholders and addressed this as part of a draft regulation they are preparing. We received permission to share this with the ANR and have attached it in APPENDIX A, along with our response comments to the section.

After further review, it was determined that the original intent of adding this definition was not clear. Infectious isolation waste is beyond the scope of these Rules and is regulated by other entities.

§6-1402(S): As discussed in the section above, we appreciate this being introduced however there should be greater clarification for healthcare, or that this definition specify that it was intended to address pharmaceuticals only under the Home Generated section.

Healthcare Facilities will be revised to reflect the EPA guidance.

§6-1402(T)(1): We recommend adding ". . . solid waste as defined within this section are considered. . . " .

Noted.

§6-1402(T)(2)(3): (may want to reconsider the numbering in this section could be confusing to reference later as well) Add after "unless they contain visible blood or are known to be highly infectious" to address potential issues like those identified during Ebola.

The numbering system of the Rules will be reviewed and corrected. After further review and discussions with other agencies, it was determined that this exclusion would be revised by eliminating the term 'nasal' only and that the suggested language would then no longer be necessary.

§6-1402(T)(2)(5): This might be a good place to identify long term care facilities, hospices etc.

It was not the intent that facilities and hospices would be excluded from the definition of RMW.

§6-1402(T)(2)(5): RMW Transfer Facility: the term "certified" was added. We would recommend that the ANR reference the section of the regulations under which such a facility must be certified if such exists or specify what certification means.

See §6-1406. This section lists the portion of the Rules that describes the necessary regulation.

§6-1402(S): Waste Pharmaceuticals: Pharmaceuticals present a unique challenge in healthcare and in home generated environments. We have additional questions and concerns outlined below:

- DEFINITION: ANR has defined the term "pharmaceutical" in the definition section. However, the last part of the definition states *"Pharmaceuticals and used containers are covered under the Hazardous Waste program"*. This statement is unclear, since not all pharmaceuticals qualify as a hazardous waste under EPA. Does the ANR assume and require that healthcare facilities manage all pharmaceuticals as a hazardous waste? In reviewing Vermont hazardous waste regulations, we did not see this to be the case. We would recommend that ANR reference the section of regulations on hazardous waste management so as to clarify for healthcare generators that it is intended for all pharmaceutical wastes (hazardous and non-RCRA hazardous) to be managed under this program. If this is indeed the intent, this will be a significant change and cost for healthcare.

  Hazardous waste has its own regulations as mentioned. After the review of this comment and knowledge of increasing discussions, it was decided that the inclusion of pharmaceuticals in the Rules is premature. There is other agencies and focus groups working on addressing pharmaceuticals and introducing new language could increase the risk of contradiction in regulation. It is also important to note that, while pharmaceuticals are primarily handled as hazardous waste, not all pharmaceutical waste falls in that category.

§6-1402(T)(2)(5): Not sure this should say "RMW" generated in the home..", because by definition, if it's meeting the exclusion requirement, then it isn't RMW. Perhaps strike the term "RMW" and replace it with the word "waste". You state something similar in section 1408, so this would be consistent.

Agreed and corrected.

§6-1403: This section bleeds (pun intended) over into hazardous and solid waste pollution prevention rather than sticking to RMW. For example, including ways to reduce mercury or toxicity of waste or polyvinyl chloride plastics is not specific to RMW and too broad of a scope for a waste minimization assessment for RMW.

This section has been removed from the Rules and will be a stand-alone tool. The contents of the assessment have been revised to focus on the management of RMW and the safety of the personnel and environment.

§6-1402(CC): This section is not clear if it is a standard intended for a specific treatment; meaning it doesn't state if this is for autoclaves, chemical treatment, etc. We will discuss treatment standard specifications in more detail later under its own section.

After reviewing this comment and other comments, it was determined that the Rules were not addressing the current practice of the medical industry. Given the length of time between approvals of Rules, the technology specifics on treatment will be left to the medical industry. The intent of the Rules is that the waste is treated to an accepted level by the medical industry.

§6-1403(B): Waste Minimization and Pollution Prevention Assessment needs to be more clearly stated that this is intended to be provided by the generating facility. We agree fully with 10. regarding education and training of

employees.

After reviewing this comment and other comments, the language was added to the Assessment to clearly identify the intent. It was also determined that this assessment should not be in Rule and will be maintained as a separate document.

§6-1403(B)(10): Training was addressed under one section under these regulations. There are training requirements under other federal regulatory requirements. We would recommend however that there be some minimum training requirements for generators, transporters and treatment/disposal facilities. There may be many healthcare providers including hospitals, clinics, doctor's offices, long term care facilities, etc. who should have appropriate and effective training to all employees affecting the management of these waste streams. Stericycle recommends there be some basic level of training which should be required, so that employees managing these materials are aware not only of the potential hazards but also the potential need for segregation. This training should be conducted at the beginning of job function (after the rule passes and for any new hires thereafter) and, based on our experience, with the rate of turnover and the amount of change in healthcare settings, training repeated annually. Training must be documented.

29 CFR 1910.1030 addresses the training requirements for handling medical waste within the industry and this adequately addresses the safety of staff.

§6-1404: We support the RMW change in managing sharps to allow for landfill disposal after they are rendered unusable with a mobilizing agent or plaster. This makes a lot of sense and will reduce costs and compliance issues.

Further discussion on the handling of used sharps has eliminated the plaster component of the Rules. Encouraging the use of containers that come specifically with an immobilizing agent will remain as an option.

§6-1404(C): We would recommend that there is a specific definition of "storage" under this section. It should clarify if these are intended to include soiled utility rooms, consolidation areas, holding areas etc. This will be important to determine and ensure compliance with the time requirements.

After review of this comment and other comments, it was determined that additional language would be added to clarify when RMW falls under this section as Storage. It is the intent of this section to address when RMW becomes stationary, regardless of the point in time during the process. Additional clarification will also clarify the difference between transporting and storage.

§6-1404(C)(1)(i): We suggest that this be allowed to be electronically received. Additionally it is not reasonable to expect that the facility stamp it as soon as it is on the property, there will be a time when the waste is in flow. It would be beneficial to add:

"*must be date stamped or otherwise electronically identified as received as it is inventoried into the transfer station/treatment facility system as soon as feasible.* . . "not to exceed eight hours

This comment was taken under consideration and revisions were made.

§6-1404(C)(1)(v): This is not typically how areas are identified. Most often they will have the universal biohazard symbol or the word "biohazard" in conformance with Occupational Safety and Health Administration (OSHA). We would recommend that the language be changed to be flexible so that all areas are not required to remark all of their signage with something that is not standard in the industry.

After reviewing this comment, this section was corrected to reflect OSHA language.

§6-1404(C)(1)(vii): As mentioned earlier the term "storage" is not defined, thus making it difficult to understand where

these time limits apply. This would not be reasonable for those areas where the waste is being generated (in patient areas etc). This time limit is not realistic for generators or transfer stations. This is barely enough time to accommodate for the waste to be scheduled for pick up especially when there are holidays and weekends involved. We have not experienced vectors to be a problem in this part of the country due to weather. We typically see, at a minimum, 7 days without refrigeration and up to 30 days with refrigeration. We would request that this change be made to more reasonably accommodate storage for generators and transfer times for transporters/treatment facilities.

After review of this comment and other comments, it was determined that additional language would be added to clarify when RMW falls under this section as Storage. It is the intent of this section to address when RMW becomes stationary, regardless of the point in time during the process. Additional clarification will also clarify the difference between transporting and storage. The time limit applicability was adjusted from all generators to generators at consolidation points. It also includes transfer and treatment facilities as these facilities all have the potential to accumulate unmanageable quantities of untreated RMW if not addressed. The timeframe will be discussed further.

§6-1404(D)(1)(i): We suggest that this be allowed to be electronically received. Additionally it is not reasonable to expect that the facility stamp it as soon as it is on the property, there will be a time when the waste is in flow. It would be beneficial to add *"must be date stamped or otherwise electronically identified as received as it is inventoried into the transfer station system as soon as feasible. . . "*

This comment was taken under consideration and revisions were made.

§6-1404(D)(1)(ii)(c)(aa): This section identifies cultures and stocks and references biosafety level documentation; however it would be helpful to clarify that the ANR is intending for only certain levels to be accepted without requiring the reader to have to look for specific documents. We typically see Biosafety level 4 referenced here or reference to the DOT PHMSA regulations pertaining to Category A infectious substances, which is what most medical waste companies reference. We would recommend referencing the DOT regulations since they are the regulations that typically govern the transport of this waste material anyway. Also, the ability to dispose into wastewater may need to be prefaced for wastes from highly infectious agents. As we saw with Ebola, there may be a need to address this material before discharging to the wastewater. New guidance released "*Interim – Planning Guidance for the handling of Solid Waste Contaminated with a Category A Infectious Substance"* may be a good reference document (http://phmsa.dot.gov/staticfiles/PHMSA/DownloadableFiles/Files/Interim_Planning_Guidance_for_Handling_Category_A_Solid_Waste.pdf).

Noted. This will be taken under consideration.

§6-1404(D)(1)(ii)(c)(ad): Additionally, as stated before, we would recommend again that non-hazardous "*trace"* chemotherapy be added.

After the review of this comment and other comments, it was agreed that the Rules should be addressing trace chemotherapy waste only. Further review will be done to determine to what extent the Rules should address this type of waste given that bulk chemotherapy waste likely falls within the hazardous waste regulations.

§6-1404(D)(1)(ii)(c): The following are recommendations of issues absent from the regulations in this section:

- This treatment section does not address how pharmaceuticals are to be managed by healthcare.
- This would be a good section for the ANR to address how they would like to have isolation waste identified and properly managed if anything different since we do not see that addressed in any other part of the regulations.

Healthcare Facilities will be revised to reflect the EPA guidance.

§6-1404(D)(2): We would reiterate here what we stated under our Overarching General Comments section regarding

treated waste recordkeeping.

See previous comment.

§6-1404(D)(3) to (6): We believe that there may have been an error in the way that this was formatted. These parts seem to refer to methods that are recommended to be deployed for home generated wastes, not through general healthcare. We would recommend that these sections be removed and moved to Section 6-1408.

After review of this section, some changes were made to clarify the language. However, the intent of this section was not for home generated waste, it is intended for the small quantity generator.

§6-1404(E)(3): We would reiterate here what we stated under our Overarching General Comments section regarding treated waste recordkeeping.

See previous comment.

§6-1404(E)(5): This is not a reasonable time frame. There are weekends, holidays, or days when there may be weather related issues that require waste to be maintained for a longer period of time. One example of regulations that allow for additional time is under the Pennsylvania Code Subchapter A. General Provisions 284.2 (a)(5) Transfer facilities that temporarily store regulated medical or chemotherapeutic waste for less than 72 hours provided the stored waste remains in its original packaging, is not putrescent, and does not attract vectors. (http://www.pacode.com/secure/data/025/chapter284/subchapAtoc.html). We would recommend this be considered as the requirement for transporters under this rule.

After review of this comment and the draft Subchapter 3, 6-302(A)(7)(iii), revision to the timeframe will be made to ensure there is not a contradiction within the Rules.

§6-1404(F)(2): This requirement is not clear and is not really reasonable. Often treated sharps, even if originally contained in sharps containers, become exposed during the treatment process. We would reiterate here what we stated under our Overarching General Comments section regarding treated waste recordkeeping.

Noted.

§6-1404(C)(1)(i), (D)(1)(i), (D)(2), (F)(2), and §6-1405(C): There are not many specifics about what type of recordkeeping the ANR would like to have done. We would ask that the regulation clearly specify what records should be maintained and that electronic recordkeeping is permitted. Electronic recordkeeping generally provides for better maintenance and management of information. If it is important for ANR, that information is readily available to them during inspections, this should also be made clear. It is not clear how long the records should be maintained in the regulations. If this is found in another section of the solid waste regulations we recommend it be moved to this section to be specific to medical waste or at least reference the applicable specific sections in the medical waste section.

The Certificate of Treatment and stamped receipts do not specifically mention a written form, only the completion of documentation. Any alternatives or the agreements do mention a written form. However, an electronic form can be proposed to the Secretary provided the documentation is clear and available upon request.

§6-1404(F)(2)(ii): We recommend that records be maintained for 3 years and we find most states have a 3 year record retention requirement. Federal Environmental Protection Agency (EPA) manifesting requirements are 3 years while Department of Transportation Pipeline Hazardous Materials Administration (DOT PHMSA) recordkeeping requirements are 2 years for the shipper (or generator; under 49 CFR 172.201(e)) and one year for the carrier (or transport company; 49 CFR 177.817(f)). Clearly these are long standing and established recordkeeping requirements. Additionally, should there be an investigation or ongoing litigation of compliance issues, it could be written into the regulations that records shall be maintained until ANR allowed for the release of such records.

The Certificate of Treatment is required to be maintained at the landfill for a period of one year.

§6-1404 and §6-1405: Packaging of Medical Wastes: We appreciate that the proposed regulations are explicit to all the entities involved (explained in the table under 6-1404) that regulated medical waste is packaged in accordance with DOT PHMSA. The following are a few additional comments to this section:

- Packaging of Regulated Medical Waste – DOT PHMSA regulations are applicable whenever waste is offered for transport in commerce or if an entity is transporting materials for their own purposes. This would also be applicable when a small quantity generator is sending to a large quantity generator under the concept of consolidation. This is not clearly identified under section 6-1405. We would recommend that this section reference to section 6-1404 B. 1. for ensuring compliance with DOT regulations

The table referenced under §6-1404 applies to the small generator and there are packaging requirements applicable for that entity. Also, see §6-1405(C)(iii) for small generator applicability.

§6-1404(B)(4): We believe that the ANR did not intend this to be the case as in many cases sharps containers are closed and placed into other outer medical waste containers so that they can be properly transported in compliance with DOT PHMSA regulations. Perhaps the ANR intended to state "*Used sharps shall be placed in a proper sharps container at healthcare facilities. Sharps containers must be properly closed and packed prior to transport. No loose sharps should be in regular regulated medical waste containers.*"

The rules have been changed to require compliance with DOT regulations 49 CFR 173.197 and OSHA, 29 CFR 1910.1030

§6-1405: This section deals with allowing large quantity generators to accept regulated medical waste from small quantity generators for treatment. It should be clear that these wastes should still be properly packaged and documented if wastes are being sent from commercial facilities to other commercial facilities (as it relates to hospitals or laboratories). We would recommend referencing back to section 6 – 1404 B. here as a reminder that DOT regulations must be followed.

We understand ANR's position on the need for consolidation; however, we have not found it to be a best management practice that works well. There are times that wastes are sent that are not properly identified, packaged incorrectly, or leaking/damaged. This then becomes an issue between the different regulated entities, especially if any regulatory issues arise. If ANR chooses to allow this we would recommend that it is clear to both the generator and the consolidating facilities what their responsibilities are. This is especially critical if the consolidating facility plans on sending the waste off site for treatment.

Agreed, the rule has been updated to specifically cite the DOT and OSHA regulations.

§6-1405(A)(1): This states that a large quantity generator, except for facilities working with infectious agents at biosafety levels 3 or 4, may treat RMW on site. There are times when there are smaller labs that may generate these materials and the regulations should clearly state that small generators cannot send this material to a large generator for consolidation.

Agreed, this prohibition has been added to the rule.

§6-1405(B)(1): We are unclear what this distinction is. There was a time when autoclave bags were required so that it was clear for solid waste workers to identify that this material had been treated when placed into the compactor from on-site treatment. Is this the distinction being made here? Additionally, it says "will need to be" not "required" to be or "must be" we recommend that it be clear this is a requirement.

At the end of this section there is a NOTE: which states that "the typical red, biohazard bag currently employed is not designed to withstand the high temperature and pressure conditions created in an autoclave." We don't understand

how this is relevant or what this is intended to substantiate. These bags are used successfully throughout the industry and throughout the country and typically meet DOT standards. It is unclear why this is in the regulation. We recommend it be deleted.

Agreed. After reviewing this comment and other comments, it was determined that this level of specifics should be addressed in the RMW Operational Plan when a facility applies for approval. In this plan, it is required to provide the type of sanitization treatment methodology to include the use of these bags as necessary.

§6-1406: We understand and appreciate that there will be sections that have to be referenced from the other parts of the solid waste regulations. We recommend that it be further detailed so that it is more specific to a regulated medical waste facility so that the applicant to the certification does not have to address issues that are more typical to a true solid waste facility i.e. wind rose, or landfill gasses etc. It helps to simplify the permitting process for both the applicant and the regulatory agency.

The Subchapters listed are for facility certifications with many applicable requirements for RMW transfer facilities.

§6-1406(A)(1)(iii) and (vi): The way this is written it suggests that a regulated medical waste facility would be allowed to accept hazardous waste. We would recommend rewording these two sections to fit together to state: "plan for the proper identification, separation and management of nonconforming wastes such as hazardous and radioactive waste". This way it is clear that these materials should not be accepted for processing or treatment through a medical waste facility.

This will be revised to be understood as a contingency plan for the case when hazardous waste is transported to the transfer facility.

§6-1407: We understand and appreciate that there will be sections that have to be referenced from the other parts of the solid waste regulations. We recommend that it be further detailed so that it is more specific to a regulated medical waste facility so that the applicant to the certification does not have to address issues that are more typical to a true solid waste facility i.e. wind rose, or landfill gasses etc. It helps to simplify the permitting process for both the applicant and the regulatory agency.

The Subchapters listed are for facility certifications with many applicable requirements for RMW treatment facilities.

§6-1407(A)(1)(i)(b): This section is very loosely defined and could create a compliance risk for the treatment facility. Specifically for demonstrating the efficacy of treatment, we would potentially recommend the following:

- Based on the treatment methodology, the treating facility shall establish efficacy of treatment through validation process as recommended by the manufacturer or other established industry standards.
- efficacy of the operation shall be established at the beginning of start up of the operation;
- treating facility shall establish a standard efficacy protocol as part of their Operations Plan submitted to the Department;
- records of established efficacy protocols as outlined in the operations plans shall be maintained for a minimum of three years
- We recommend again in this section that the Treatment Standard and the frequency of the testing be identified rather than in the definition. An example might be to look at the Rhode Island Department of Environmental Management Regulation DEM – OWM-MW-1-2009; Section 12.4 On-Site Steam Sterilization Standards http://www.dem.ri.gov/pubs/regs/regs/waste/medwaste10.pdf This section provides an updated protocol in conformance with today's technology and provides flexibility (regulations were updated in 2010). Additionally it provides for the frequency of testing to ensure efficacy.

Noted. Further discussion is needed on this section.

§6-1407(A)(1)(iii)(f): This section is a little confusing and seems misplaced. This may have been an issue at a time when incineration was more prevalent and water issues may have existed. There are no remaining medical waste incinerators in the state that we are aware of. We would recommend rewording this to update it to today's standards with "*Facilities must conform and comply with local wastewater discharge requirements or local POTW requirements and obtain wastewater and storm water permits as necessary."*

After reviewing this comment, the intent of this section was found to be unclear and has been revised.

§6-1407(A)(1)(iii)(i) and (j): The way this is written it suggests that a regulated medical waste facility would be allowed to accept hazardous waste. We would recommend rewording these two sections to fit together to state: "plan for the proper identification, separation and management of nonconforming wastes such as hazardous and radioactive waste". This way it is clear that these materials should not be accepted for processing or treatment through a medical waste facility.

This will be revised to be understood as a contingency plan for the case when hazardous or radioactive waste is transported to the transfer facility.

§6-1407(A)(13): We would reiterate here what we stated under our Overarching General Comments section regarding treated waste recordkeeping.

Noted. It is also noted that this section needs to be re-numbered.

§6-1408: This section refers to the proper management of home generated regulated medical waste and pharmaceuticals. What is not clear here is who is being regulated and who will be held accountable for the proper management of this material. Under applicability requirements it states this is waste generated in a private residence, but how does the department plan on enforcing this regulation? Are these recommendations? If so it should be clear. All sections that pertain to the home generated wastes should be consolidated here (as referenced under section 6-1404 D. 3. through D. 6.

Noted. The section referenced above is not for Home Generators, it is for small quantity generators.

§6-1408 C.1.i. and ii.: This suggests that after giving oneself an injection, that you set the sharp down (instead of putting it in the disposal container), put on gloves and get a tong, then pick up the syringe again. Do we really want to regulate what a person does in their home to that degree? Aren't recommended best practices, as DOH has published, adequate? If the more extensive guidelines are enacted, there is the potential for pushback from the medical community regarding patients with limited mobility (arthritis, nerve damage, tremors, etc.) being able to manage tongs.

Further discussion on handling used sharps has added clarity to the intent to include when used sharps are discovered.

§6-1408(B)(1) and (D)(1): HOME GENERATED: ANR addresses pharmaceutical waste management under home generated waste section 6-1408. We understand and appreciate the need to provide clarity for home generated waste streams in light of both the social and environmental challenges home generated pharmaceuticals present. This helps provide needed clarity.

After the review of this comment and knowledge of increasing discussions, it was decided that the inclusion of pharmaceuticals in the Rules is premature. There is other agencies and focus groups working on addressing pharmaceuticals and introducing new language could increase the risk of contradiction in regulation.

§6-1407(D)(1): Does this effectively ban all home-generated pharmaceuticals from disposal as trash? If so, we are concerned. VT no has an EPR prescription drug law in place, but I'm not sure this statement covers enough detail if a

ban is what you are after. There's no definition of "Unused Medications" anywhere in these Rules (e.g., Is Advil then banned from landfill?). VT's EPR law directs the DOH to create a new program for managing unused "prescription drugs," but there are plenty of "Unused Medications" that do not require a prescription. I'm also not sure if directing people to the VT Drug Diversion Unit is what the DOH will select as a solution. Should the SW rules be in line with the EPR law on pharmaceuticals already in place?

After the review of this comment and knowledge of increasing discussions, it was decided that the inclusion of pharmaceuticals in the Rules is premature. There is other agencies and focus groups working on addressing pharmaceuticals and introducing new language could increase the risk of contradiction in regulation.

§6-1407(D)(1): I read this to say that unused medications are now banned from disposal. Is that intended? Expired aspirin, for example, may not go in the trash? Please reword or reconsider this.

The term *prescription* has been added to add clarity to the intent of the section with the option to add other medications.

§6-1407(D)(2): Additional comments to certain sections: Used Sharps Mailback Program: Should be added that programs or packages that are being shipped through the United States Postal Service must have Authorization.

Noted.

§6-1407(D)(3): This section references the container specially made for sharps commonly known as a red box – which is really more commonly known as a sharps container. We would recommend that the term continue to be used is "sharps container." This is what they are sold as and would help to educate the public so that when looking for purchasing these they can find the correct products. Additionally these containers are already properly labeled.

After reviewing this comment and other comments, the language was revised to remove the term 'red box' and ensure that the language did not contradict other agencies.

§6-1407(D)(3)(i): Suggest striking the word "opaque." Why would the container need to be opaque? If there's a hard, plastic #2 jug that happens to be a bit see-through, then it should work.

Agreed, opaque has been struck.

§6-1407(D)(3)(ii): I don't think DOH recommends that residents pour plaster in the storage container. Please see comments on 6-1408 C.1.i. and ii.

Further discussion has concluded that the plaster use is not included in the Rules. (ii) removed

§6-1407(D)(3)(ii): I'd trike this line completely, unless we want to get into the business of selling plaster of paris at the Transfer Station. Most households probably will not have this stuff readily available, and so will likely not bother doing this anyway. The other issue is that plaster of paris contains crushed gypsum, which, when water is added, creates an exothermic reaction. Although the reaction is probably mild, it may vary by brand, and could result in significant heat generation, the point being that we're asking the elderly to collect needles into a plastic jug, add gypsum and water, and then while it's heating up, seal the lid tightly. Seems like a recipe for an exploding needle jug. Has someone vetted this as a good technique? The rules also mention using the gypsum earlier in the draft (not the household section). We are not in favor of this practice.

Agreed, Further discussion has concluded that the plaster use is not included in the Rules.

§6-1407(D)(3)(i): Suggest changing the labeling to "Used Household Sharps" to avoid any confusion that there may be RMW in the container. If a resident insists on using a red biohazard box, we don't want any uncertainty about the

regulatory status of the contents when it rolls out of a packer truck. Saying "Used Sharps" isn't enough.

Agreed, after further discussions the recommendation is for the container to have "Do Not Recycle" written on it.

Subchapter 15 – Special Topics

General: While we understand that the practice of leachate re-circulation has proven to be difficult at Vermont facilities, we feel that the Research, Development, and Demonstration Permit option should be kept as an alternative, as the types of waste accepted are subject to change and technological advances may one day make this more feasible.

In this round of rulemaking, Research, Development and Demonstration rules will not be added. This does not close the door on inclusion in future rule making attempts.

§6-1502 (A): This section should specify that a solid waste must be determined acceptable by the Secretary with their approval. Please see the following revision.

Any person may request approval for an acceptable use of a particular solid waste which would otherwise be disposed unless determined acceptable by the Secretary/Agency whose approval will not be unreasonably withheld. Acceptable use determination does not apply to:

The proposed additional language is unclear; however, the intent of the comment seems to be a request to provide clarification that approval must be obtained from the Secretary, this language has been added.

§6-1502 (A)(6): This should not be limited at this time as fuel blends such as pellets or sorted materials under a quantitative recipe, are becoming more common and more beneficial than disposal. This also contradicts that "clean" wood waste is recognized as a fuel and is acceptable. Additionally, Tire Derived Fuel may also become more of a part of the solution to the waste tire concerns, and should not be excluded. DEC should consider revising this section.

The Secretary does not agree that incineration should be consider diversion/recycling and no changes have been made.

§6-1502 (B)(5):

(Acceptable use determination will not be considered for any requests utilizing a solid waste which:] is incinerated to produce energy or fuel products.

We believe that this item should be removed in its entirety as it is inconsistent with "natural" wood waste being acceptable and limits its future uses.

The Program considers natural wood waste to be acceptable for incineration i.e. a wood chip plant. However, other solid wastes are not eligible to receive an acceptable use determination.

Proposed Subchapter- Waste Haulers

Due to the current waste haulers license requirement and new requirements from Act 148, Casella suggests DEC include a new subchapter. This subchapter will provide clarification for waste hauler requirements, and will add to the compilation of Solid Waste Rules that the DEC has in-place. Please see the following proposed subchapter.

The Secretary appreciates the comment and the work put into developing the proposed language. This suggestion will be considered, though it may not be incorporated into this current round of rule revisions.

§6-1601 Purpose

It is the purpose of this Subchapter to ensure that waste haulers are practicing safe and environmentally sound transportation methods, and delivering waste materials to an appropriate final destination and to prevent the accidental discharge of wastes into the environment in accordance with 10 V.S.A. §6607a.

§6-1602 Applicability

A. All parties intending to haul non-hazardous solid waste materials to or from any location in Vermont for compensation are subject to the requirements of this Subchapter. This is applicable to commercial haulers which includes:

1. Any person that transports non-hazardous solid or residual waste for compensation.

2. Any person that transports construction and demolition waste or architectural waste for compensation.

3. Any person that transports mandated recyclables, leaf and yard waste or food waste for compensation.

§6-1603 Waste Hauler Exemptions

In addition to the exemptions provided in Subchapter §6-302 and as specified under 10 V.S.A. §6607a(g)(3), waste haulers meeting the criteria below are exempt from offe1ing collection of mandated recyclables, leaf and yard residuals and food residuals separated out from other solid waste with the following findings from the Secretary:

A. The area proposed for the exemption is within a municipality for which a SWIP has been approved by the Agency of Natural Resources.

B. That the approved SWIP:

1. Clearly delineates the area where the collection services by haulers would not be required. Map(s) must be submitted indicating the towns or portions of towns within the delineated area that would not have collection services offered. If p01iions of towns are delineated, the map must clearly indicate which streets are proposed for the exemption.

2. Fully demonstrates that alternative services are offered and have the capacity to

serve the needs and are convenient to all residents in the delineated area.

§6-1604 New Permit Applications

A. In accordance with the applicable waste haulers as determined by §6-1602, all persons who transport solid waste materials originating or terminating at any location in Vermont are required to obtain a permit for transportation activities.

B. Permit applications must be submitted on forms prescribed by the Secretary and must include thefollowing:

1. Company name and contact person

2. Identification of each vehicle to be used to transport solid waste mate1ials

3. Types of solid waste materials to be transported

4. General origin and destination of solid waste materials

5. Disclosure statements as required by 10 V.S.A. Section 6650(f).

C. Permit applications to transport hazardous waste must also provide the following information, in addition to the requirements of §6-1604.

1. A Supplemental Application on forms prescribed by the Secretary must be submitted with the application.

2. Certification of employee training for hazardous waste management

3. Insurance and financial responsibility documents

4. U.S. EPA federal identificationnumber

§6-1605 Permit Renewal Applications

A. Permits are issued for a period of 5 years, and require annual renewal applications to be submitted to the Secretary on forms prescribed by the Secretary. Completed renewal application forms must be submitted 30 days prior to June 30th.

B. Annual Statements must be submitted with the annual renewal application, on forms prescribed by the Secretary.

C. The environmental regulatory fee is required to be submitted with permit renewal applications pursuant to 10 V.S.A.

§6-1606 Permit Modifications

A. Applications for transporter permit modifications must be submitted to the Secretary on the forms prescribed by the Secretary.

B. Applications for permit modifications must identify all proposed changes including changes in vehicle license plate numbers,

additions or deletions of transport vehicles, changes in waste types, and identification of new or deleted receiving facilities.

C. If change of ownership occurs, the Permittee shall file a disclosure statement at least 90 days prior to the proposed change as required of an applicant under 10 V.S.A. § 6605f.

§6-1607 Permitting Requirements and Standards

A. The Secretary's decision to issue or deny a permit for the transportation of solid waste materials shall be based on the following considerations:

1. [Include VTDEC'S basis for issuance or denial of a transporter permit].

2. The compliance history and reliability of the applicant. A waste hauler permit may be denied, revoked, suspended or modified based upon the unsuitability of the applicant under the provisions of 10 V.S.A. §6605f.

§6-1608 Transporter Requirements

A. The operator of any vehicle used for activities covered by this Subchapter shall affix to the vehicle, the permit sticker issued by the Secretary.

B. The transporter shall present the permit, together with shipping or transporting documents relative to the solid waste materials being transported, to authorized representatives of the Secretary or to any law enforcement officers when requested to do so.

C. The operator of any vehicle used for activities covered by this Subchapter shall remain with such vehicle while it is being filled or discharged.

D. A permittee shall submit a report to the Secretary annually, on forms prescribed, as desc1ibed by §6-1605. A permittee shall retain for three years the records on which such reports are based, and shall make such records available , upon request, to the department during normal business hours.

E. A permittee and the operator of any vehicle used for activities covered by this Subchapter shall comply with all applicable State and Federal laws and all rules and regulations promulgated thereunder. The permittee is responsible for all requirements for all vehicles , including leased vehicles operated under this permit.

F. Permits are not transferable. Any change of address, name or location of garaged vehicles must be submitted immediately to the Secretary.

G. Waste collected shall be delivered to a solid waste management facility certified by the Secretary.

H. No person shall transfer solid waste from a vehicle, trailer, or container used for the collection or storage of solid waste to another vehicle, trailer, or container at any

place other than a ce1iified solid waste facility except as allowed under §6- 302(A)(8).

I. Vehicles, trailers, or containers used to collect or transport solid wastes shall be covered during transport of solid waste. Vehicles, trailers, or containers shall only be transported uncovered when they are completely free of solid waste.

J. Beginning July 1, 2015, transporters that collect solid waste mustoffer to collect mandated recyclables separated from other solid waste and deliver mandated recyclables to a facility maintained and operated for the management and recycling of mandated recyclables as established under 10 V.S.A.

K. Beginning July 1, 2016, transporters that collect solid waste must offer to collect leaf and yard residuals separate from other solid waste and deliver leaf and yard residuals to a location that manages leaf and yard residuals in a manner consistent with the priority uses established under 10 V.S.A. §6605k(a)(3)-(5).

L. Beginning July 1, 2017, transporters that collect solid waste must offer collection of food residuals separate from other solid waste and deliver to a location that manages food residuals in a manner consistent with the priority uses established under 10 V.S.A. § 6605k(a)(2)-(5).