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PUBLIC HEARING DRAFT

BUILDING CAPACITY FOR MANAGING ORGANIC MATERIALS IN MASSACHUSETTS:

PROPOSED REGULATION AMENDMENTS

PART A: Proposed Amendments of the Site Assignment Regulation (310 CMR 16.00) and Solid Waste Management Facility Regulations (310 CMR 19.000)

PART B: Proposed Amendments of the Operation, Maintenance and Pretreatment Standards for Waste Water Treatment works and Indirect Dischargers (314 CMR 12.00)

November 10, 2011

BUILDING CAPACITY FOR MANAGING ORGANIC MATERIAL IN MASSACHUSETTS

1. Introduction

The Draft 2010-2020 Massachusetts Solid Waste Master Plan proposes ambitious goals of reducing the quantity of waste disposed of in the Commonwealth by 30% (2 million tons) by 2020, and by 80% (5.2 million tons) by 2050. To accomplish these goals, Massachusetts residents, municipalities, businesses and institutions will need to divert much more material from trash than they do today, and we will need to have infrastructure to collect this material from generators, process it, and move it to the businesses that will reuse it or recycle it into new products.

The Draft Plan proposes the adoption of a number of strategies for increasing residential, commercial and institutional recycling over the next twenty years. A major proposed priority is to significantly increase the diversion of organic material from the solid waste stream, from the 100,000 tons that were diverted in 2009 to 450,000 tons by 2020, an increase of 350,000 tons/year. Meeting this goal will require significant increases in in-state capacity at anaerobic digestion, composting, and recycling facilities.

This aggressive target is consistent with the recently released Massachusetts Clean Energy and Climate Plan for 2020. Achieving the goals of both of these Plans will produce important environmental benefits. An expansion of in-state recycling/processing capacity will also create jobs and economic development opportunities. Expanding in-state capacity to process diverted organic material will have important benefits for Massachusetts farms and will help anaerobic digesters at MA wastewater treatment plants operate more efficiently and economically.

In February 2011, the Executive Office of Energy and Environmental Affairs established a Task Force on Building Organics Capacity in Massachusetts to:

- Identify the barriers to advancing management of organic material in Massachusetts,
- Identify ways to reduce or eliminate these barriers, and
- Recommend specific actions to expand the infrastructure for composting, recycling, and organics management

The Task Force concluded that the technologies for composting and recycling organics have improved a great deal over the last 20 years or so. Today, anaerobic digestion, composting, and recycling operations are less like solid waste dumps and more like modern manufacturing plants. While they can cause nuisance conditions if not properly managed, today's facilities are nothing like the landfills and solid waste facilities of the past.

The Task Force also noted that the Commonwealth's regulations and incentives have not kept pace with changing technology. The Massachusetts Site Assignment Law (M.G.L. chapter 111, §150A and §150A ½) and Regulations (310 CMR 16.00) were designed for solid waste management facilities such as landfills and transfer stations. Existing exemptions for facilities handling organic material are

limited to small composting operations (i.e., those accepting less than 15 tons per day of organic material generated at other locations). Anaerobic digesters and other “advanced” technologies are not even specifically addressed. Existing exemptions for recycling facilities are similarly limited to small operations; larger facilities (up to a certain size) can obtain a “Determination of Need” from MassDEP that a Site Assignment from the local Board of Health is not needed.

The Task Force discussions focused on four types of issues affecting the development of recycling and organics management facilities:

- Regulations adopted by the Massachusetts Department of Environmental Protection (MassDEP);
- Data, infrastructure and markets for materials;
- Regulations and incentives adopted by the Massachusetts Department of Energy Resources (and other financial incentives); and
- Municipalities’ needs for technical assistance and other support.

The discussions about MassDEP’s regulations focused on two barriers to the development of anaerobic digestion, composting, and recycling facilities in Massachusetts: the lack of clear permit pathways for facilities that employ advanced technology such as anaerobic digestion, and concerns about the applicability of the local site assignment process to these facilities. At a time when project financing and some economic incentives require that construction start within specific time frames, these uncertainties discourage developers from proposing projects in Massachusetts.

Recyclable material (metals, plastic, glass containers) can be diverted from the solid waste stream by generators (residences or businesses), or at processing facilities such as Materials Recovery Facilities. These facilities frequently sort certain materials (such as paper and cardboard) from other recyclables that are collected from single stream recycling programs (in which paper and cardboard are mingled in one container with glass, plastic, and other recyclable materials). Each type of material is sent to a manufacturer that uses it to make new products.

In general, organic material can be separated into two groups. One group includes materials that contain relatively high levels of carbon, and are not likely to become putrescible¹. The second group contains materials that are higher in nitrogen, tend to contain more water, and are more likely to become putrescible. The draft regulation proposes that organic material with a carbon/nitrogen ratio that is higher than 30:1 be classified as “Group 1” materials, which are not likely to become putrescible. The draft regulation also proposes to classify organic material with a carbon/nitrogen ratio that is less than 30:1 as “Group 2” materials, which are likely to become putrescible.

¹ The proposed definition of “putrescible” in the public hearing draft of the regulations is “a material, usually nitrogenous, containing a high water content, likely to undergo decomposition at ordinary temperatures, and likely to give off odors.”

Establishing a material’s carbon/nitrogen ratio in a laboratory requires two readily available (and inexpensive) tests: a test for organically bound carbon, and a test for total nitrogen. These are typically used to determine whether additional carbon or nitrogen is needed to facilitate plant growth with compost. Table 1 provides examples of the types of material in each group.

Table 1 Examples of Organic Materials			
Group 1: Materials High in Carbon and Not Likely to Become Putrescible (Carbon to Nitrogen ratio above 30:1)		Group 2: Materials High in Nitrogen and Likely to Become Putrescible (Carbon to Nitrogen ratio below 30:1)	
Example Materials	C:N ratio	Example Materials	C:N ratio
Clean wood (chips, bark shavings, sawdust)	100-1300:1	Vegetable material	11-19:1
Cardboard	560:1	Food material	14-16:1
Paper and paper products	125-850:1	Grass clippings	17:1
Leaves	40-80:1	Green plant material (i.e., weeds, hay)	15-19:1
Straw	60-80:1	Fish Waste	2.6-5:1
Corn stalks	60-73:1	Manure	6-14:1
Shrub trimmings	53:1	Residuals from aerobic and anaerobic digestion processes	Variable

Source: U.S. Composting Council, 2009

While both types of organic material can biodegrade, Group 2 materials require greater care in their management due to their higher probability to create nuisances such as odors. Both Group 1 and Group 2 materials must be separated from waste at its source (where it is generated), because once these materials are mixed, they cannot be effectively sorted from other materials. These materials are referred to in the proposals described below as “source separated organics”.

PART A. PROPOSED AMENDMENTS OF THE SITE ASSIGNMENT REGULATION (310 CMR 16.00)

MassDEP is proposing a package of amendments for the Site Assignment regulation (310 CMR 16.00) that:

- Establish that facilities handling certain organic or recyclable materials that have been separated from waste, and which will recycle, compost or convert these feed stocks into new products or energy would not be considered “solid waste management facilities”, and would therefore be exempt from Site Assignment;
- Establish levels of MassDEP review and oversight for these facilities that are commensurate with and appropriate for the environmental and public health issues that they present, and that will ensure that these facilities are properly constructed and managed to avoid public health and environmental impacts; and
- Establish clear permitting pathways for facilities that would require site-specific MassDEP approvals.

These amendments are designed to provide a clear process for regulating facilities that accept and process organic material generated at other locations, and more generally for facilities accepting recyclable material that has been separated from waste.

2. Basic Principles

The proposed amendments to the Site Assignment Regulation have been developed using the following basic principles:

- Any facility managing solid waste from municipal, commercial or construction sources is a “solid waste management facility” and must obtain a Site Assignment.
- Materials that have been separated or sorted from solid waste (“pre-sorted”) and are used as feed stocks to manufacture products will not be regulated as “solid waste”, and the operations that use these materials will not be regulated as “solid waste management facilities”.
- Residuals remaining after organic or recyclable materials have been separated from the waste are considered to be “solid waste”.
- The operations that are managing pre-sorted materials must ensure that the quality of both the incoming pre-sorted materials and their outgoing products are suitable for their intended purposes.
- Operations managing pre-sorted materials must ensure that the pre-sorted materials they accept for use as feed stocks contain only incidental levels of toxic substances that will not cause the operation’s products to pose a threat to public health, safety or the environment.
- The operations must be constructed and operated to meet MassDEP’s standards for protection of public health and the environment, and for the prevention of public nuisances.
- MassDEP’s process for permitting operations to manage pre-sorted materials must provide for adequate public review and comment on permits.

In establishing the appropriate level and type of MassDEP oversight of the operations that manage pre-sorted material, the following factors have been considered:

- The type and quality of input materials, and their potential to affect public health and the environment or to cause public nuisances (e.g., operations handling materials that are likely to become putrescible would require a higher level of MassDEP oversight than operations that handle only non-putrescible pre-sorted materials);
- The size of the operation (e.g., larger operations will require a higher level of oversight than smaller ones);
- The type of technology the operations will use (more complex operations and technologies with limited track records should receive a higher level of oversight than operations using proven technologies); and
- The type and quality of end products (the products that the operation produces must be of sufficient quality to ensure that they are marketable).

3. Proposed Approach: Exempt Operations Accepting “Pre-Sorted” Materials from Site Assignment and Create MassDEP Permits for Recycling, Composting and Conversion Operations

A. Current Exemptions and Permits:

The current Site Assignment Regulation exempts manufacturing and industrial activities that use recyclable materials in their processes (e.g., glass and paper manufacturing plants), farms that apply manure and composted organic agricultural material to their land, disposal of trees and brush at residences, and several types of storage and processing activities (e.g., temporary solid waste storage in dumpsters, temporary storage in local DPW yards, occasional layovers of vehicles hauling solid waste and non-commodity cathode ray tubes, hospital and laboratory storage areas for infectious waste, wood handling operations, operations for recycling asphalt, brick, and concrete, and tire chipping and processing).

The Site Assignment Regulation also currently provides that small recycling and composting facilities that handle only pre-sorted material are exempt from Site Assignment as long as they are operated in compliance with specific conditions: recycling drop-off centers, beverage container redemption centers, and paper baling/handling facilities are “conditionally exempt” from Site Assignment. Larger facilities handling only pre-sorted materials may apply to MassDEP for a “Determination of Need” as to whether they require a Site Assignment. If MassDEP agrees that they are handling only pre-sorted material, they can operate under the Department’s “Determination of Need”. Currently, facility-specific decisions about the applicability of Site Assignment to these facilities do not provide opportunities for public comment or other public involvement, beyond a notice to the local Board of Health when MassDEP issues a facility-specific “Determination of Need”.

B. Proposed Expansion of Exemptions and Establishment of Alternative Permits:

MassDEP is proposing to:

- Clarify that facilities that manage wastewater treatment residuals in accordance with a Site Assignment issued under M.G.L. c. 83, § 6 and regulated pursuant to 314 CMR 12.00 are not covered by the Solid Waste Site Assignment Regulation (Publicly Owned Treatment Works may want to add certain source-separated organic material to the wastewater treatment plant sludge in their anaerobic digester. A companion set of regulatory amendments to 314 CMR 12.00 to facilitate the use of source-separated organic material in these units is contained in Part B of this package);
- Establish new definitions in the Site Assignment Regulation for “biodegradable”, “biodegradable product”, “clean wood”, “conversion”, and “putrescible”, and revise existing definitions for terms used in the amended regulation (corresponding revisions are also being proposed for the definitions in 310 CMR 19.000);
- Raise the current thresholds for exempting recycling and composting operations (i.e. - modify tonnage limits);
- Replace the current approval process (e.g., the current “Determination of Need”) with a permit process designed to allow consideration of any type of facility that will manage pre-sorted materials through recycling, composting, or conversion of certain organic material into a new product or energy; and
- Enhance the existing public comment process for facilities that seek a permit for recycling, composting or conversion.

These exemptions and permits would be available only for facilities that are *not* handling solid waste, which includes residual material that remains after recyclable material has been removed from waste. Facilities handling solid waste would need to obtain a local Site Assignment and a MassDEP solid waste permit for those operations. Depending on the type and size of a facility that is handling only pre-sorted material, it would be:

- Exempt from MassDEP solid waste regulation; or
- Operate under a “Permit by Rule” (similarly to the facilities that are “conditionally exempt in the current Regulation); or
- Obtain a facility-specific Recycling/Composting/Conversion Permit from MassDEP (this permit program would replace the “Determination of Need” process).

This approach would clearly identify the types of facilities that are subject to this regulation, and would establish an appropriate level of MassDEP oversight for covered facilities, based on the risks that could be posed by the operation.

(1) *Modify Exemptions from Site Assignment:* the existing list of activities that are currently exempt from Site Assignment would be re-organized into several categories to more clearly delineate the types that are not subject to the Site Assignment Regulation. This list currently includes:

- Manufacturing or industrial activities that use recyclable materials in their processes;

- Land application of manure and other agricultural material at farms that are regulated; by the Massachusetts Department of Agricultural Resources
- Home composting and disposal of trees and brush at residences;
- Storage and Processing Activities:
 - Temporary solid waste storage in dumpsters, etc.
 - Temporary storage by local public works departments
 - Occasional solid waste vehicle layovers
 - Occasional Non-commodity Cathode Ray Tube vehicle layovers
 - Hospital and lab infectious waste storage areas
 - Wood handling operations
 - Asphalt, brick, and concrete recycling operations that are located at the site of the source of the material or a sand and gravel extraction operation
 - Tire chipping, shredding or other tire processing ; and
- Recycling Operations handling only pre-sorted materials:
 - Recycling drop-off centers
 - Beverage container redemption centers
 - Paper baling and handling.

This list of exemptions would be expanded to include:

- Five new types of manufacturing operations that use recyclable materials: cement and concrete plants, foundries, asphalt batch plants, rendering plants, and operations that recycle clean wood (e.g., sawdust, chips, and shavings from discarded trees, stumps, and brush).
- Three new types of Storage and Processing exemptions:
 - “Municipal food material collection” activities, which would allow municipalities to store small quantities of food waste for short periods of time at facilities such as DPW yards until they collect enough to warrant a shipment to a handling facility;
 - Composting at non-farm and non-residential locations, of up to five tons and 10 cubic yards of vegetative materials, food materials, or animal manures generated at the site (these may include zoos, institutions, and businesses); and
 - Activities handling agricultural other organic material at farms that are regulated by the MA Department of Agricultural Resources (MA DAR). MA DAR regulations now establish requirements for composting at farms; the agency is currently revising its regulations to update the composting

requirements and may add regulations to allow other types of aerobic digestion and the acceptance of source-separated organic material generated at other sites, up to a certain limit. MassDEP would consider the activities covered by MA DAR's regulations to be adequately regulated. If a composting operation at a farm loses its status as a regulated entity under MA DAR's regulation, or a farm wants to operate a larger composting operation than MA DAR allows, its organics management operation would be regulated under the applicable MassDEP regulation.

- CRT Operations would be added to the "Storage and Processing" category (these are "conditionally exempt" in the current Site Assignment Regulation, and would be moved into the new category).
- One-day events for collecting recyclable material would be added to the list of exemptions for "Recycling Operations".

(2) *Create "Permit by Rule" categories for specific types of recycling, composting, and conversion operations:* Under a "Permit by Rule", operations or activities that meet specific criteria can be built and operated without a site-specific permit from MassDEP, as long as they meet the conditions established in the regulation. Permits by Rule are usually established for smaller operations and activities where there is a relatively low risk of nuisances or problems for public health or the environment if they are not properly managed. This approach is similar to the regulation of "conditionally exempt" operations under the current Site Assignment Regulation, in which operations do not need to obtain a Site Assignment from their local Board of Health as long as they comply with specific conditions in the regulation, and obtain any applicable local approvals (e.g., zoning, building permits, etc.).

The proposed Permits by Rule would include the "Conditionally Exempt" operations in the existing Site Assignment Regulation, and would expand the types of facilities that would be eligible. The proposed Permit by Rule regulation would establish conditions or performance standards that facilities must meet to maintain their eligibility, to ensure that they do not harm public health or the environment, and do not create nuisances (e.g., odors, litter) for their neighbors.

The proposed regulation would establish three specific groups of operations that would be eligible for a Permit by Rule. Each group would be subject to conditions that would be applicable to that type of operation. The three groups are:

- Recycling operations that handle up to 250 tons/day. These would include facilities that further sort recyclables from single- and dual-stream municipal recycling collections

(e.g., Materials Recovery Facilities). The maximum tonnage that a facility could accept would be raised from 100 tons/day in the current regulation. However, the current regulation exempts paper handling operations, so the paper that these facilities handle is not counted toward its current 100 tons/day limit. Now that many recycling operations are taking in material collected from single-stream collection programs, they receive paper mixed in with the plastic, glass, and other recyclables that have been diverted from the waste stream. MassDEP believes that these facilities have typically been handling about 15 tons of paper for every 10 tons of other recyclables they accept, so the proposed limit of 250 tons/day of all material accepted is expected to encompass almost all of the recycling operations that are “conditionally exempt” from Site Assignment currently.

- Small windrow composting operations, including yard waste composting and “general” composting, with a maximum capacity of 50,000 cubic yards or 10,000 tons of organic material on site at any time. The general composting operations would be limited to accepting a total of 30 tons of putrescible materials per day, so that the amount of putrescible and required non-putrescible material will not exceed the overall maximum capacity proposed above. Please note that a weight-based limit will be more appropriate for some types of facilities, while a volume-based limit will be more appropriate for others. MassDEP plans to issue guidance about how to estimate the weight or volume of incoming material to facilitate compliance assessments. Composting operations at farms would not be eligible for this Permit by Rule if they are covered under MA DAR’s regulations; and
- Aerobic or Anaerobic Digestion facilities that accept up to 60 tons/day of source-separated organic material that is pumped directly into the digester unit or a tight storage tank (this category would not include anaerobic digesters at Publicly Owned Wastewater Treatment Works). The limit of 60 tons/day for this category is based on the Department’s experience with permitting anaerobic digesters at five farms in the last year.

Facilities that want to accept more material than would be allowed for their category under a Permit by Rule would need to obtain a site-specific permit from MassDEP, as well as whatever local approvals and permits their host municipality requires (e.g., zoning approval, building permit, etc.). This proposal would make Permits by Rule available for the types of small operations that MassDEP believes are not likely to create nuisances or problems for public health or the environment. The proposed size limits for these operations are designed to be conservative. As the Department gains more experience with these operations, it may propose to increase or decrease the limits on operations that would be eligible for a Permit by Rule. These changes would be accomplished by proposing amendments to 310 CMR 16.00, and seeking public comment before issuing a final regulation.

All facilities operating under a Permit by Rule would need to comply with the following general requirements:

- File a compliance certification with MassDEP within 30 days of starting operation (or within 90 days of promulgation of this regulation for existing facilities);
- Use only pre-sorted materials;
- Incorporate good management practices into the facility's operation;
- Ensure that the quality of pre-sorted input materials is sufficient for the facility's operation, and that the quality of the facility's products is sufficient for the products to be marketable;
- Prevent unpermitted discharges of pollutants;
- Do not create public nuisances;
- Do not present a threat to public health, safety or the environment;
- Keep accurate records;
- File annual reports with MassDEP about the types and quantities of material handled, and file annual certifications that the facility is in compliance with the Permit by Rule conditions; and
- Notify the local Board of Health before starting operation

The conditions associated with a Permit by Rule would not include specific set-backs or siting requirements. However, due to the potential for composting activities to discharge nitrates into groundwater, composting under a Permit by Rule would not be allowed to be located within 250 feet of a private drinking water well.

"Best Management Practices" for recycling operations that operate under a Permit by Rule would include:

- The facility accepts only recyclable material that has been pre-sorted;
- Recyclable material is not contaminated by toxic substances;
- Residuals generated by the recycling operation that require disposal do not exceed 10% of the weight of the material processed, on a quarterly basis;
- Recyclable materials, incidental solid waste and residues are stored only in a handling area, containers, or trucks that are sufficiently enclosed and covered to prevent nuisance conditions; and
- Recyclable material is stored for no more than 180 days after it is received (to avoid speculative accumulation).

"Best Management Practices" for yard waste and general composting facilities that operate under a Permit by Rule would include:

- Personnel are properly trained;
- The operation is staffed with the proper number of personnel for its size;

- Equipment is appropriate for the operation;
- Compost is turned on a regular and timely basis;
- Putrescible (Group 2) materials must be incorporated quickly, no later than end of the day on which they are received;
- The operation has no more than 5,000 cubic yards of material/acre on its site at any one time AND ensures that the material it receives contains no more than 25% putrescible (Group 2) material;
- The operation provides proper thermal regulation and monitoring of the composting operation;
- The operation is properly designed to control run-off, other discharges, and any air pollution emissions;
- Preparation and implementation of an odor control plan; and
- Residuals generated by the composting operation that require disposal do not exceed 5% of the weight of the material processed on a quarterly basis.

Please note that the maximum amount of material that a composting operation could receive under a Permit by Rule would be limited by both the maximum amount of material that can be on the site at any one time as well as need to maintain the required proportion of putrescible material vs. non-putrescible material. Operations may need to limit the quantities of material they accept (or the quantities of putrescible material) to less than the maximums allowed to ensure that they meet the “no public nuisances” performance standard.

The Regulation would also establish “Best Management Practices” for aerobic and anaerobic digestion facilities that operate under a Permit by Rule:

- Personnel are properly trained;
- The facility is staffed with the proper number of personnel for its size;
- Equipment is appropriate for the operation;
- The facility provides proper thermal regulation and monitoring of the operation to prevent spontaneous combustion, vectors, pathogens, and other undesirable conditions;
- The facility is properly designed to prevent ponding of water and run-off, and to prevent unpermitted discharges to the environment;
- All material generated off-site must be delivered via sealed tanker trucks and use direct connection technology (e.g., a hose) to transfer material into storage tanks or the digester, to limit nuisance conditions;
- All organic material must be added to the active digestion system by the end of the business day on which it is received or stored in air tight storage tanks for no more than 24 hours before it is added into the digestion process;
- All solid and liquid materials produced by the digestion process must be disposed of in accordance with all applicable regulations or receive a “beneficial use determination”

from the Department or other appropriate approval from another state agency for its reuse; and

- Residuals generated by the recycling operation that require disposal do not exceed 5% of the weight of the material processed.

Assessing Compliance and Enforcing Permit by Rule Conditions: MassDEP would use the same tools for assessing the compliance of Permit by Rule operations with these general and specific conditions that it uses (with a high degree of effectiveness) for a wide variety of different types of small pollution sources:

- The Department would take enforcement action against operations that do not file the required reports and compliance certifications.
- Department staff would investigate complaints by neighbors about nuisance conditions and other issues that may indicate non-compliance with the Permit by Rule conditions.
- The annual reports and compliance certifications filed by the operations would be made available to the public, and the Department would review them on a periodic basis to identify anomalies that may trigger a targeted inspection.
- DEP may conduct inspections at a number of facilities drawn from a random sample of those in a particular group or category, to assess compliance by the group as a whole.
- Operations found in non-compliance would be provided with an opportunity to come into compliance with the conditions for their Permit by Rule. If an operation does not come into compliance when directed to do so by MassDEP, and the Department finds that the operation is accepting mixed solid waste or is not using pre-sorted material to manufacture a product, the Department may require the facility to obtain a Site Assignment.

(3) *Create Facility-Specific Permits for Operations that Do Not Qualify for a Permit by Rule:* The proposed Regulation establishes a process for MassDEP review of applications for site-specific permits for recycling, composting, or conversion operations that do not qualify for the exemptions or permits by rule described above. "Conversion" operations would be defined as those using aerobic or anaerobic digestion of compostable materials or enzymatic, thermal or chemical degradation of *compostable materials*, and would allow for recovering the energy value of these materials (which would not be allowed in a recycling operation). Facilities that process organic material to prepare them for use in a conversion technology (e.g., by converting organic material into a slurry that can be pumped into a digester) would be required to obtain a site-specific permit, and would not qualify for a Permit by Rule.

Permits would only be available for operations that use pre-sorted materials (organic material likely to become putrescible would need to be source-separated) that contain only incidental amounts of toxic substances so that the products would not pose a threat to public health, safety or the environment. These materials would not include solid waste.

The Regulation proposes that applications for this permit describe:

- The pre-sorted material that would be accepted (quality, quantity and sources, and chemical and/or physical characterization);
- The methods and technology proposed to be used in the recycling, composting or conversion operation;
- Information about the site on which the operation would be built;
- Design plans showing the operation's size and location of storage and handling areas, design of the processing operation(s), roads, storm water management controls/run-on and run-off, etc.;
- Any and all discharges and emissions to the environment, and how these will be managed); and
- The products and residuals that the operation will produce.

The Regulation also describes the process that the Department would use to review applications and issue approvals or disapprovals, and qualitative criteria that MassDEP would use to make these determinations:

- Input materials are pre-sorted, and organic material used for composting or conversion is source separated;
- The materials meet the definition of a "recyclable" or "compostable" material. The Department may consider the nature of any contaminants and their probable effect on products or public health, safety and the environment;
- The materials can feasibly be processed, if applicable, and recycled, composted or converted under the proposal set forth in the application;
- The proportion of residuals requiring disposal from the operation is limited to the same proportion as established for similar types of operations conducted under the Permit by Rule or an alternative proportion determined by the Department based on an industry average residual generation rate using the best available processing equipment;
- The site is appropriate for the particular proposed activity, size, and technology, considering the project's potential impact on sensitive receptors. Please note that, due to the wide variation in types of projects for which permits could be sought, MassDEP is not proposing to establish quantitative set-back requirements, beyond a requirement that composting operations would not be able to be located within 250 feet of an existing private drinking water well);
- The operation will not speculatively accumulate material;
- Material and products will be handled so that nuisance conditions will not develop, public health and the environment will be protected, and there will be no unpermitted discharges to air, water or land; and
- The proposed project can be successfully completed in compliance with all other appropriate local, state and federal rules and regulations

(4) *Public Review of Permits:* One important difference between the review process for Determinations of Need and the proposed Permit for Recycling, Composting, or Conversion Operations is the provision of a standard opportunity for the public to review permit applications and the Department's draft permit, and to provide comments (the current process for a Determinations of Need requires only a notification to the local Board of Health, with no other opportunity for public input). The regulation also proposes to allow the Department to hold a public hearing about a draft permit if requested by the applicant or if the Commissioner (or a designee) determines that there is sufficient public interest in the project to warrant a hearing.

To further ensure that the public has opportunities to comment on a proposed project, MassDEP is working with the MEPA Office, which is planning to launch a stakeholder process to consider changes to the MEPA regulations to align them with these regulations.

(5) *Issuance of Final MassDEP Determination:* At the close of the public comment period, the Department will consider all comments received, and issue a Final Permit (or a Final Disapproval). If the project's permit is approved, the final document will contain conditions on its construction and operation that are similar to the "Best Management Practices" described above, but would be tailored for the particular requirements of the facility under consideration.

(6) *Appeals of MassDEP Final Permit Determinations:* MassDEP is proposing to establish an administrative process for appeals of final Recycling, Composting, and Conversion Permits, that would be structured similarly to appeal processes for other MassDEP decisions. An administrative process would allow appeals to be resolved quickly, since timelines are fast, mediation can be used, and appeals of this decision can be consolidated with appeals of other MassDEP decisions relating to a single operation or facility. Also, in an administrative process, MassDEP can facilitate participation by litigants with limited means (hearing procedures are greatly simplified and no lawyer is required). For appeals that cannot be resolved administratively, the record created by an administrative review can help to expedite a court challenge, since MassDEP's adjudicatory hearing decisions are given deference by the courts under M.G.L. c. 30A, § 14. With these benefits, an administrative appeal process may minimize the number of appeals that would have to go to court and would be more appropriate for facilities that are not "refuse facilities" (which would be subject to Site Assignment; appeals of Site Assignment decisions must be made directly to court).

(7) *Permit Review Timelines and Fees:* MassDEP plans to propose the establishment of timelines for reviewing applications for Recycling, Composting, and Conversion Permits, as well as fees that would cover some of the Department's costs for these reviews. The proposal will also include annual compliance fees for operations subject to these

regulations. These proposals would be contained in a separate document amending the Department's regulation on Timely Action and Fees (310 CMR 4.00).

(8) *Grandfathering Facilities Currently Operating under Determinations of Need (DON):* The proposed regulation would require existing operations that are currently in compliance with a DON to convert to the applicable category (exempt, permit by rule, or permit) in the proposed regulation as follows:

- a. Operations holding a DON that establishes an expiration date would convert to the applicable category on or before the renewal date;
- b. Operations holding a DON that does not have an expiration date would convert to the applicable category within five years of the effective date of the proposed regulation.

The conversion would be accomplished by virtue of the provisions of the proposed regulation. In other words, the operation owner/operator would simply have to certify to the Department that it is in compliance with its DON; the conversion would take place automatically and the operation would then be regulated under the applicable new category (exempt, permit by rule, or permit). If an operation is not in compliance with its DON, then it would be subject to enforcement by the Department and, if applicable, would have to apply for a permit under the new regulation.

(9) *Recycling, Composting, and Conversion Operations at Facilities that are currently Site Assigned:* Operations that recycle, compost, or convert material that has been diverted from solid waste can be located on property for which a Board of Health has issued a Site Assignment. Proponents of these operations would need to check the Site Assignment document to determine whether the recycling, composting, or conversion operation would be allowed. If so, and the operation qualifies for an exemption or Permit By Rule, the proponent would need to file a certification with the Department which would include a certification that the proposed activity is allowed under the Site Assignment and will not interfere with the operation of the solid waste management facility at the site. This certification would be, by regulation, a modification of the facility's solid waste management permit (issued under 310 CMR 19.000). If the recycling, composting or conversion operation requires a site-specific permit from MassDEP, the proponent would need to file the appropriate application with MassDEP. Any permit that is granted would constitute a modification of the facility's solid waste management permit. If the Site Assignment does not allow the type of recycling, composting or conversion operation proposed for the site, the proponent would need to apply to the Board of Health to modify the Site Assignment appropriately, and then submit the appropriate certification or permit application to MassDEP. The Department would like to ensure that recycling, composting, and conversion operations proposed to be located on site assigned property are subject to the same processes as similar operations that would be located on property that is not site assigned.

4. Other Approaches Considered:

MassDEP considered two other approaches to regulating operations that recycle, compost, or convert pre-sorted materials. One would have made some minor modifications to the existing Site Assignment Regulation to establish a “Site Assignment-Lite” process for these facilities. However, this approach was rejected because many of the criteria and standards in the Site Assignment regulation are actually established by statute, and are not easily amended to make them more applicable to industrial operations, rather than facilities that manage solid waste. This approach was also rejected because it would appear that these facilities would be considered to be “solid waste management facilities” in the traditional sense of landfills and incinerators, when they are actually more like modern industrial operations.

A second approach would have made more limited changes in the exemptions currently in the Site Assignment Regulation, to increase the amount of material that exempted recycling and composting facilities could handle and remain exempt from Site Assignment. While these changes are actually being proposed in the amended regulation, MassDEP does not feel that these changes alone would be sufficient to clearly establish appropriate levels of state oversight for the widely varied types of facilities that are being proposed for development in the Commonwealth now or in the future.

5. Issues for Consideration

The Department seeks public comment on all aspects of this proposed regulation, particularly on the following issues:

- Do these proposals satisfy the basic principles described in Section 2 above?
- Are the levels of MassDEP oversight proposed for recycling, composting and conversion facilities appropriate for the different types of operations and activities, considering the different types of risks for public health and the environment that they can present?
- Are the proposed categories defined so that they can accommodate new technologies that may be available in the future?
- Are the thresholds that are proposed to separate facilities into the Permit by Rule and Permit categories appropriate?
- Are the “Best Management Practices” or performance standards that would be required for all facilities in a particular category appropriate for those categories?
- Are the opportunities proposed for public involvement in decisions about Permits for Recycling, Composting, or Conversion Operations appropriate?
- MassDEP is recommending that MA DAR should regulate organics management on farms, but would require farm-based projects that do not qualify for MA DAR’s program to qualify for a Permit by Rule or obtain a site-specific permit from MassDEP (as appropriate). Does this policy provide a level playing field between farm and non-farm operations?
- The proposal does not include specific set-backs or siting requirements for either Permit by Rule operations or activities that would be conducted under an operation-specific MassDEP permit. This approach differentiates these permits from Site Assignment

(which requires an analysis of specific “site suitability” criteria), and provides flexibility for the wide variety of projects that are likely to be proposed. It also relies on the land use controls established by the host municipality and does not require MassDEP to make land use decisions. One exception is provided, to prevent the contamination of private drinking water supplies with nitrates from composting operations. MassDEP seeks comment on whether this approach is reasonable and practical.

- The draft regulation proposes a set of qualitative criteria that MassDEP would use to determine whether to grant or deny an operation-specific permit. The Department seeks input on whether more specific (possibly quantitative) criteria should be developed – if so, what should they be?
- MassDEP has issued Determinations of Need to 80 existing recycling and composting operations since 1992. The proposed regulation would require that these facilities apply for a Permit for Recycling, Composting or Conversion Operation when their DON expires, or within five years after the regulation is promulgated if their DON does not have an expiration date. The Department expects that all of the DON facilities currently operating to be able to meet the requirements for a new permit, but seeks comment on how this requirement may affect facilities currently operating under DONs.
- The process for considering an operation-specific permit application would provide an opportunity for the public (including the host municipality) to comment on the application and draft permit. MassDEP seeks comment on this proposal: is the level of public involvement proposed appropriate?

PART B: DRAFT AMENDMENTS TO THE REGULATIONS FOR OPERATION, MAINTENANCE & PRETREATMENT STANDARDS FOR WASTE WATER TREATMENT WORKS & INDIRECT DISCHARGERS (314 CMR 12.00)

1. Introduction

The proposed revisions will allow the use of source separated vegetative and food material in anaerobic digesters with the approval of the Department. This is consistent with EOEEA’s initiative to promote the production of biogas for renewable energy generation, support the goals of the solid waste master plan and create sustainable revenue streams from tipping fees or other contractual arrangements for obtaining vegetative and food materials for publicly owned treatment works.

The laws and regulations governing the siting, oversight and operation of publicly owned treatment works do not address the potential to add materials to the process for purposes other than traditional treatment (like energy creation or reformulation of byproducts into new products). Although no POTW in Massachusetts currently adds organics to an anaerobic digester, doing so could have multiple economic and environmental benefits for the public owner, and create broader environmental benefits through clean energy generation.

The draft revisions include:

- Explicitly allowing Publicly Owned Wastewater Treatment Works (POTWs) to accept source separated organic material in anaerobic digesters operated at their wastewater treatment facilities with Department approval;
- Adding new record keeping and reporting requirements regarding all source separated organic material accepted and processed in anaerobic digesters at POTWs;
- Clarifying the existing requirement for Department approval of the O&M Manual;
- Including a presumptive approval process for rules and regulations, manuals, plans and contracts prepared by POTWs for Department review and approval.

In reviewing proposals to process source-separated organic material in anaerobic digesters at POTWs, the Department will consider the types of material that are proposed, the capability of the system to manage it, operational problems that could be created by accepting the material, and any impacts on permit compliance. Specific considerations may include the need for dewatering or other processing steps to prepare the material before it enters the anaerobic digester, methods in place for preventing effluent violations due to the discharge of supernatant back to the head works, and the likelihood of upset problems within the anaerobic digester unit.

There will be no additional fees generated for the agency from these changes since the draft regulations only refer to publicly owned treatment works which are currently exempt from fees.

2. Basic Principles

The process for siting POTWs will not be affected by these changes. The proposal will clarify and refine the proper level of oversight and expectations for modifying wastewater operations through adding additional materials— not their location. The additional energy generation from the biogas generated will result in lowered utility costs to POTWs at a time when municipal budgets are severely stressed. These changes are intended to maintain and insure effective wastewater treatment processes and the capacity to achieve effluent limits as well as existing standards for residuals management. The introduction of additional materials to digesters should not create nuisance conditions since only those digesters with available capacity will be allowed to accept such materials. Operations seeking to take advantage of these new provisions may need to adjust staffing plans and revise operation and maintenance procedures to reflect their changed processes.