

Summary of Select State Composting Regulations
Institute for Local Self Reliance
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Table of Contents

Oregon	3
Updating Composting Regulations	3
On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit	3
Performance-Based Standards and Site-Requirements and Regulatory Tiers.....	4
State Financial Assistance to Facilitate Composting	5
Washington	6
On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit	6
Performance-based standards, site-requirements, and regulatory tiers	7
California	8
On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit	8
Permit Requirements, Performance Standards, and Site Requirements	9
Maine	10
Updating Composting Regulations	10
Florida	11
Updating Composting Regulations	11
Iowa	12
On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit	12
Rhode Island	12
On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit	12
Massachusetts	13
On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit	13
Ban on yard trimmings in landfills or incinerators.....	14
New York	15
On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit	15
Pennsylvania	15
Ban on yard trimmings in landfills.....	15
On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit	15
Minnesota	16
Compostable bag law and yard trimming disposal ban.....	16
Other: San Francisco Mandatory Composting Law	17
Helpful guides and general composting information	17

Table of Contents (Continued)

Information by Subject Area

Case studies of the process to update state composting regulations

Oregon:	3
Maine:	15
Florida:	17

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit:

Oregon:	5
Washington:	8
California:	11
Iowa:	14
Rhode Island:	15
Massachusetts:	16
New York:	17

Performance-based Standards and Regulatory Tiers

Oregon:	6
Washington:	9
California:	11

Ban on Yard trimmings in Landfills

Massachusetts:	16
Pennsylvania:	17
Minnesota:	19

Ban on Food Scraps in Landfills/Mandatory Composting

San Francisco:	19
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General Guides to Household and Industrial Composting:

Oregon

Oregon has complete and pragmatic composting regulations, which aim to both facilitate composting and prevent nuisance to the public or any adverse environmental consequences. Oregon revised its composting regulations in 2009. The process of these revisions is described below. Conditional exemptions for small-scale and agricultural compost facilities, specific site requirements that must be fulfilled to receive a permit, and ongoing performance standards that must be maintained are also described.

Updating Composting Regulations

In 2009 the Oregon Department of Environmental Quality (DEQ) revised its composting regulations in order to facilitate composting and limit negative environmental consequences of poorly operated compost facilities.

In a [document describing the revisions](#), the Oregon DEQ states that composting helps achieve several state goals including preventing the release of methane (a potent greenhouse gas, that would otherwise occur due to anaerobic decomposition in landfills) improving soil fertility, and contributing to the state's goal of recovering 50 percent of its solid waste by 2009.

In order to collect stakeholder input, the DEQ consulted members of the commercial refuse and recycling industry, the Composting Council of Oregon, agricultural composters and regional governments. The DEQ also met with the Oregon Department of Agriculture and the Oregon State University Extension Service. In addition, the DEQ convened a workshop for agricultural composters.

Additional Resources:

- Full text of Oregon DEQ's New Rules Regulating Composting Facilities Fact Sheet: <http://www.deq.state.or.us/lq/pubs/factsheets/sw/NewRulesRegulatingCompostingFacilities.pdf>
- Oregon DEQ's composting website: <http://www.deq.state.or.us/lq/sw/compost/>
- Full text of Oregon's revised composting regulations: http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_093.html
- News coverage by the Oregonian regarding the regulations: http://www.oregonlive.com/environment/index.ssf/2009/08/oregon_close_to_setting_new_rules.html

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit

Oregon requires most compost facilities to apply for a permit from the Department of Environmental Quality. However, in order to facilitate composting, Oregon conditionally allows some operations to compost small quantities of certain materials without a permit. These conditional exemptions from the permit requirement can be revoked if specific performance standards are not met.

The Oregon Department of Environmental Quality's [website](#) reports, "DEQ supports and encourages composting. At the same time, DEQ is aware that, if not conducted in the proper manner, or if conducted

at an improper location, composting presents potential environmental problems, most notably to surface water and groundwater.” Oregon’s regulations, amended in 2009, are tailored to both facilitate beneficial small-scale composting and protect the environment.

According to [O.A.R. 340-096-0060](#), Oregon allows the following conditional exemptions from the requirement to obtain a permit:

- 20 tons per year of meat and source-separated post-consumer scraps composted in an aerated static pile or a windrow
- 40 tons per year of meat and source-separated post-consumer scraps to be composted in-vessel
- Up to 100 tons per year of yard trimmings, industrially produced vegetative food scraps, or other materials deemed to be a low risk of environmental contamination by the Department of Environmental Quality.

Additional Information:

- Full text of Oregon DEQ’s New Rules Regulating Composting Facilities Fact Sheet: <http://www.deq.state.or.us/lq/pubs/factsheets/sw/NewRulesRegulatingCompostingFacilities.pdf>
- Full text of Oregon’s revised composting regulations: http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_093.html
- Additional Oregon regulations: Special Rules For Selected Solid Waste Disposal Sites: http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_096.html

Performance-Based Standards and Site-Requirements and Regulatory Tiers

In order to apply performance-based standards and site requirements based on the size and potential environmental consequences of the material being composted, Oregon separates various types of compost into three **tiers**. These regulations are found in [Oregon Administrative Rules Section 340-093-0030](#). These tiers include:

- Type 1 feedstocks “include source-separated yard and garden wastes, wood wastes, agricultural crop residues, wax-coated cardboard, vegetative food wastes including department approved industrially produced vegetative food waste, and other materials the department determines pose a low level of risk from hazardous substances, physical contaminants and human pathogens”
- Type 2 feedstocks “include manure and bedding and other materials the department determines pose a low level of risk from hazardous substances and physical contaminants and a higher level of risk from human pathogens compared to type 1 feedstock”
- Type 3 feedstocks “include dead animals, meat and source-separated mixed food waste and industrially produced non-vegetative food waste. They also include other materials the department determines pose a low level of risk from hazardous substances and a higher level of risk from physical contaminants and human pathogens compared to type 1 and 2 feedstocks”

Oregon has differing requirements based on the tiers above; examples of these requirements are listed below. For more information see [Oregon Administrative Rules, Division 96](#).

Specific information about the site and conditions of the compost facility must be submitted with the initial application. These regulations relating to screening of compost facilities by the state can be found

in O.A.R. Section 340-096-0080. They include physical information including location, distance to surface water, soil types, wind direction, and other factors.

In addition, there are ongoing regulations aimed at preventing nuisance and environmental damage that may result from the compost site. These regulations vary based on the tier of compost being processed. The most significant differences relate to pathogen reduction. For example, “if less than 2,500 tons of composted material from Type 1 and 2 feedstocks are produced per year, testing must be conducted once a year”; however the same amount of Type 3 material must be tested every three months.

The specific performance standards for compost facilities are listed in O.A.R. 340-096-0070; additional “Special Rules Pertaining to Pathogen Reduction” are in section 340-096-0140. Some of these performance standards include:

- Designing and operating the facility in a way that does not cause an unsafe discharge of leachate or stormwater runoff from the facility to surface water
- Designing and operating in a way that prevents odors that cause adverse impacts beyond the boundaries of the facility
- Achieving human pathogen reduction by ensuring Salmonella analysis results in “less than 3 Most Probable Number per 4 grams of total solids (dry weight)” and “fecal coliform analysis must result in less than 1,000 Most Probable Number per gram of total solids (dry weight)”
- In order to prevent human pathogens, compost facilities that use either an in-vessel composting method or the static aerated pile composting method must maintain a temperature in the active compost pile of at least 55 degrees Celsius or higher for three days. Facilities using a windrow composting method must maintain a temperature of 55 degrees Celsius or higher for 15 days or longer. During the period when the compost is maintained at 55 degrees Celsius or higher, there must be a minimum of five turnings of the windrow

Additional Information:

- Full text of composting regulations relating, exemptions for the requirement to obtain a permit, screening, and performance standards:
http://www.sos.state.or.us/archives/rules/OARs_300/OAR_340/340_096.html
- Full text of solid waste regulations including the definitions of composting tiers:
http://arcweb.sos.state.or.us/rules/OARs_300/OAR_340/340_093.html

State Financial Assistance to Facilitate Composting

The Oregon Department of Environmental Quality charges a fee on every ton of domestic waste deposited in landfills. The money raised by the fee is used to make grants to local governments and partnering individuals or organizations that propose ideas to improve recycling, reuse, composting, household hazardous waste disposal, and the rate of materials diverted from landfills. According to the DEQ website, between 1991 and 2008 Oregon DEQ awarded 283 grants totaling more than \$6 million. The funded projects fostered innovations in recycling and beneficial community development.

An example of a grant recipient is the ACCESS Inc Food Rescue Program in Jackson County. In collaboration with Jackson County, ACCESS Inc created a network of food service professionals that donate edible food that would otherwise be discarded. This food is then distributed to local low-income residents. This program collects 50 tons of food annually and severs 37 social service and community groups.

Additional Resources:

- Oregon DEQ Solid Waste/Recycling/HHW Grant Flier:
<http://www.deq.state.or.us/lq/pubs/docs/sw/grants/GrantFlier.pdf>
- Website describing the Jackson County ACCESS Inc Food Rescue Program:
<http://www.deq.state.or.us/lq/sw/grants/accessinc.htm>

Washington

Washington has comprehensive composting regulations that facilitate composting by conditionally exempting several types of composting facilities – including those that process limited amounts of food scraps – from the requirement to obtain a permit. Washington also aims to protect the environment and human health by requiring composters to test for pathogens and adhere to specific performance-based standards. Washington, along with Oregon and several other states, separate compostable material into several **tiers** based on its potential to produce negative public health and environmental consequences. Listed below are several classifications of compost facilities, which may be **exempt** from the permit requirement. All composters must meet **performance-based requirements**, some of which are listed below. The current state regulation went into effect on February 10, 2003.

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit

Washington exempts several types of composting operations from the requirement to obtain a permit. Full text of the regulations is contained in [WAC 173-350-220](#). Exempt activities include:

- Production of substrate used solely on-site to grow mushrooms;
- Vermicomposting, when used to process the following materials if generated on-site: yard trimmings, food scraps, or manure and bedding from herbivorous animals;
- Composting of yard and garden trimmings, pre-consumer food scraps, and manure and bedding from herbivorous animals with a volume limit of 40 cubic yards of material on-site at any time;
- Composting of food waste generated on-site and composted in containers designed to prohibit vector attraction and prevent nuisance odor generation; total volume of the containers shall be 10 cubic yards or less;
- Agricultural composting when all the agricultural wastes are generated on-site and all finished compost is used on-site;
- Agricultural composting when any agricultural wastes are generated off-site, and all finished compost is used on-site, and total volume of material is limited to 1,000 cubic yards on-site at any time;
- Composting of yard and garden trimmings, pre-consumer food scraps, and manure and bedding from herbivorous animals when more than 40 cubic yards and less than 250 cubic yards of material are on-site at any one time;
- Agricultural composting, when any of the finished compost is distributed off-site and when it meets the following requirements:
 - More than 40 cubic yards, but less than 1,000 cubic yards of agricultural waste is on-site at any time; and
 - Agricultural composting is managed according to a farm management plan written in conjunction with a conservation district, a qualified engineer, or other agricultural professional able to certify that the plan meets applicable conservation practice standards

in the *Washington Field Office Technical Guide* produced by the Natural Resources Conservation Service.”

Additional Resources:

- Full text of regulations regarding exemptions from the requirement to obtain a permit: <http://apps.leg.wa.gov/WAC/default.aspx?cite=173-350-220>

Performance-based standards, site-requirements, and regulatory tiers

All composters must adhere to specific performance standards, which are designed to prevent public nuisance and negative environmental or public health consequences. Washington’s regulations vary depending on the type of feedstock being composted. This is evident in regulations regarding exemptions from the permit requirement, pathogen reduction and site design. The **tiers**, summarized below, are fully defined in [WAC 173-350-100](#).

- “Type 1 feedstocks means source-separated yard and garden wastes, wood wastes, agricultural crop residues, wax-coated cardboard, pre-consumer vegetative food wastes, other similar source-separated materials that the jurisdictional health department determines to have a comparable low level of risk in hazardous substances, human pathogens, and physical contaminants.”
- “Type 2 feedstocks means manure and bedding from herbivorous animals that the jurisdictional health department determines to have a comparable low level of risk in hazardous substances and physical contaminants when compared to a type 1 feedstock.”
- “Type 3 feedstocks means meat and post-consumer source-separated food wastes or other similar source-separated materials that the jurisdictional health department determines to have a comparable low level of risk in hazardous substances and physical contaminants, but are likely to have high levels of human pathogens.”
- “Type 4 feedstocks means mixed municipal solid wastes, post-collection separated or processed solid wastes, industrial solid wastes, industrial biological treatment sludges, or other similar compostable materials that the jurisdictional health department determines to have a comparable high level of risk in hazardous substances, human pathogens and physical contaminants.”

A selection of Washington’s **Performance-based Standards and Site Requirements** is provided below. Full text of these regulations is found in [WAC 173-350-220](#) and [WAC 173-350-040](#).

In order to obtain state approval composters must:

- Protect surface water through “best management practices,” control nuisance odors, and comply with all state water quality laws, and ambient air quality laws.
- Complete an annual report if compost is distributed off-site. The report must include the quantity and type of material received and produced, as well as the quantity of material sold.
- Composters must allow state inspection at “reasonable times.”
- All compost facilities required to obtain a permit must submit an engineering plan or report, which indicates compliance with state regulations. State regulations require all-weather roads to places that require public access, the separation of storm water from leachate, collection of leachate in a storm water run-off prevention system that conveys leachate to a holding pond, tank, or other containment structure. Compost pads must be “graded in a manner to prevent ponding” and “the compost pad shall be constructed of materials such as concrete (with sealed joints), asphaltic concrete, or soil cement to prevent subsurface soil and ground water

contamination.” Other materials can be used if approved by the jurisdictional health department.

- Compost operations must be operated in a manner that prevents vectors. Pathogen reduction activities must be documented. In-vessel compost or aerated static piles must maintain a temperature of 55 degrees Celsius for three days, and windrows must maintain that temperature for 15 days. The operator must test for various containments and report the results to the state. Testing must be conducted once a year for Type I feedstocks and once a quarter for Type III feedstocks.

Additional Resources:

- Full text of regulations regarding exemptions and performance-based standards:
<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-350-220>
- Full text of additional regulations regarding performance standards:
<http://apps.leg.wa.gov/WAC/default.aspx?cite=173-350-040>

California

California has thorough regulations that are specifically tailored to composting. Most composting operations are required to apply for a permit; however there are many exemptions, some of which are listed below. For example, facilities that have less than 500 cubic yards of compost on-site, of which less than 10 percent is food scraps, are exempt from the requirement to obtain a permit. In addition, in-vessel composting of up to 50 cubic yards is allowed without a permit. Composting operations that are deemed a greater risk of causing environmental harm are required to either notify the enforcement agency or apply for a full permit. Facilities applying for a permit must adhere to specific site requirements. These include rules on the location and design of the facility as well as the development of a plan to minimize odors and limit pathogen production.

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit

- Agricultural material derived on-site and of which no more than 1,000 cubic yards are sold or given away annually
- Vermicomposting is exempt; however handling of compostable material prior to or after vermicomposting composting may be subject to regulation
- Mushroom farming
- “Handling of green material, feedstock, additives, amendments, compost, or chipped and ground material is an excluded activity if 500 cubic yards or less is on-site at any one time, the compostable materials are generated on-site and if no more than 1,000 cubic yards of materials are either sold or given away annually. The compostable material may also include up to 10% food material by volume”
- Non-commercial composting of less than one cubic yard of food material produced on-site
- In-vessel composting in vessels with a capacity less than 50 cubic yards

Additional Information:

Regulations regarding compost facilities including exemptions from the permit requirement (California Regulations, Title 14, Division 7, Ch. 3.1, Articles 1-3):

<http://www.calrecycle.ca.gov/Laws/Regulations/title14/ch31.htm>

Permit Requirements, Performance Standards, and Site Requirements

There are many site requirements a compost facility must fulfill in order to receive a permit. Other requirements, such as testing for pathogens and preventing harmful run-off of pollutants, are ongoing. In addition, compost facility operators must consent to inspection by the state enforcement agency.

Some specific site requirements as stated in California Regulations, [Title 14, Division 7, Ch. 3.1, Article 5](#) include:

- “All handling activities shall be conducted in a manner that minimizes vectors, odor impacts, litter, hazards, nuisances, and noise impacts; and minimizes human contact with, inhalation, ingestion, and transportation of dust, particulates, and pathogenic organisms.”
- “Random load checks of feedstocks, additives, and amendments for contaminants shall be conducted.”
- “Contamination of compostable materials that has undergone pathogen reduction... with feedstocks, compost, or wastes that have not undergone pathogen reduction... or additives shall be prevented.”
- “Unauthorized human or animal access to the facility shall be prevented.”
- “The operator shall provide fire prevention, protection and control measures, including, but not limited to, temperature monitoring of windrows and piles, adequate water supply for fire suppression, and the isolation of potential ignition sources from combustible materials. Firelanes shall be provided to allow fire control equipment access to all operation areas.”
- “Physical Contaminants and refuse removed from feedstock, compost, or chipped and ground material shall be removed from the site within 7 days and transported to an appropriate facility.”
- “An attendant shall be on duty during business hours if the operation or facility is open to the public.”
- “Operators shall ensure that all personnel assigned to the operation shall be trained in subjects pertinent to operations and maintenance... with emphasis on odor impact management and emergency procedures.”

There are additional requirements, found in [Title 14, Division 7, Ch. 3.1, Article 2](#), for composters who sell finished compost. All agricultural and green material composters must notify the enforcement agency prior to sale of a finished compost product.

- Once the agency is notified agricultural material compost can be sold in unrestricted quantities.
- If more than 1,000 cubic yards of a combination of agricultural material and green material are sold in a year, the enforcement agency will inspect once annually. If the operator intends to store more than 12,500 cubic yards of green material on-site he/she must give advance notice to the enforcement agency, which may determine more frequent inspection is necessary.
- If more than 1,000 cubic yards are sold or given away per year, operation must not have greater than 12,500 cubic yards on-site and enforcement agency will inspect every three months.

Additional Information:

- Regulations regarding compost facilities including exemptions from the permit requirement (California Regulations, Title 14, Division 7, Ch. 3.1, Articles 1-3):
<http://www.calrecycle.ca.gov/Laws/Regulations/title14/ch31.htm>

- The site requirements for compost facilities that operate with a permit are listed here (California Regulations, Title 14, Division 7, Ch. 3.1, Articles 5 -9): <http://www.calrecycle.ca.gov/Laws/Regulations/title14/ch31a5.htm#article6>
- A helpful table that describes the tiered regulation of compost facilities: <http://www.calrecycle.ca.gov/LEA/Regs/Tiered/TierChart.htm>
- California's Food Scrap page: <http://www.calrecycle.ca.gov/Organics/Food/Compost/>
- Copies of California's Compost Permit are available here: <http://www.calrecycle.ca.gov/LEA/Forms/default.htm#Permit>

Maine

Updating Composting Regulations

Legislative mandate and background:

Maine adopted new state composting rules on February 18, 2009. The state legislature mandated that the Departments of Agriculture and Environmental Protection collaborate to ease the regulatory burden on agricultural composting operations and revise the volume and types of materials that may be composted without a permit from the state. Comments were solicited from the public and a draft of the revised regulations was presented in a public hearing before the Board of Environmental Protection, which adopted the revised regulations. The new regulations were published in local newspapers and sent to persons with an interest in composting issues in Maine.

The revision of Maine's composting rules was mandated by Chapter 139 of the 2007 legislative resolves. The resolves stated that the Department of Agriculture and the Department of Environmental Protection must differentiate between composters processing "municipal sludge, septage, industrial sludge or other materials with a higher risk of contamination" and agricultural composting operations, which are defined as "composting that takes place on a farm and uses only animal manure, animal carcasses and offal, fish waste, leaves, wood chips, animal bedding and other vegetative waste, produce and other vegetable and food waste." The resolves also requested the departments "review and revise" the amount and type of materials that agricultural composters may process without seeking a license from the Department of Environmental Protection.

New Regulations:

In order to differentiate municipal and agricultural compost facilities, state composting rules were separated from solid waste regulations and placed in a new chapter of the Code of Maine Rules. New permit exemptions and changes to the regulatory thresholds were adopted. Maine regulates compost facilities based on the ratio of carbon to nitrogen (C:N) in the material to be composted. Materials with a higher proportion of nitrogen have greater potential to produce odors and leachate.

The new Maine Code of Rules specifies that, among many other exemptions, facilities are **exempt from the requirement to obtain a permit** if in a 30 day period the facility accepts less than:

- 10 cubic yards or leaf, vegetative, or other residuals with a C:N ratio of greater than 25:1;
- 5 cubic yards of food and other residuals with a C:N ratio of between 25:1 and 15:1;
- 5 cubic yards of fish or other residuals with a C:N ratio of less than 15:1.

Further exemptions from the permit requirements are available to agricultural composters, which compost between 5 and 30 cubic yards of food and other residuals that have a C:N ratio of between 25:1 and 15:1

so long as the facility has submitted a compost management plan and gained approval from the Department of Agriculture, Food, and Rural Resources. In addition, composters may process fish and other residuals that have a C:N ratio of less than 15:1 if a compost management plan is submitted and approved.

Additional Resources:

- Resolve Chapter 139, To Streamline the Regulation of Agricultural Composters, 123rd Legislature, First Session:
<http://www.mainelegislature.org/ros/LOM/lom123rd/RESOLVE139.asp>
- Link to full text of Maine Code of Rules, Department of Environmental Protection, Chapter 410: Composting Facilities <http://www.maine.gov/sos/cec/rules/06/096/096c410.doc>
- The Residuals, Sludge, and Composting page of the Maine Bureau of Remediation and Waste Management: <http://www.maine.gov/dep/rwm/residuals/>
- Contact person: Carla J. Hopkins, Environmental Specialist; Division of Solid Waste Management: carla.j.hopkins@maine.gov

Florida

Updating Composting Regulations

The Florida Department of Environmental Protection has made several recent revisions to the state's composting regulations. These revisions were made following the formation of a Compost Rule Technical Advisory Group, consultation with stakeholders and the public, input from the Florida Environmental Regulation Commission, and review of a report compiled by The Florida Organics Recycling Center for Excellence (FORCE), which summarized existing composting regulations in Florida and possible revisions that may help encourage composting.

The Florida Department of Environmental Protection recently revised Chapter 62-709 of the Administrative Code, which regulates composting operations. The Department also revised several related forms including the Application for a Permit to Construct/Operate a Solid Waste Management Facility for the Production of Compost and the Annual Report form. The Department held several public meetings in order to gather public comments. One such meeting, held on August 20, 2008, sought to solicit public comment on the potential regulatory cost of the proposed regulations. The amended rules were announced in the November 6, 2009 issue of the Florida Administrative Weekly.

Additional Resources:

- Proposed amendments to Florida's composting regulations:
http://www.dep.state.fl.us/waste/categories/solid_waste/pages/rulemaking_62-709.htm
- Full text of Florida's composting regulation as revised:
http://www.dep.state.fl.us/waste/quick_topics/publications/shw/solid_waste/62-709_Notice_of_Change.pdf
- The Florida Organics Recycling Center of Excellence (FORCE) 2006 report on composting regulations in Florida:
<http://www.floridaforce.org/images/docs/OrganicsregulatoryFinalReport.pdf>
- A helpful overview of the regulatory changes in Florida was compiled by the Cool2012 Campaign (Compostables Out of Landfills) at: <http://www.cool2012.com/tools/regulations/>

Iowa

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit

Iowa allows composters to accept up to two tons of food scraps from off-site per week without obtaining a permit. The composters must comply with specific site and operating requirements or their exempt status may be revoked.

The Iowa Administrative Code Chapter 567, Environmental Protection Commission, Subchapter 105.5(1), Organic Materials Composting Facilities, states:

Small composting facilities are exempt from obtaining a solid waste composting permit provided the facility complies with 105.3(455B,455D) and 105.5(455B,455D)... Yard waste and food residuals may be received from off premises at a total rate of two tons or less per week for composting either singly, in combination, or with agricultural waste. Any clean wood waste free of coating and preservatives may be used as a bulking agent. The two tons per week combined weight limit does not apply to bulking agent. However, the amount of bulking agent received must be appropriate for the amount of compostable materials received. Facilities composting over two tons of food residuals and yard waste per week in any combination from off premises must obtain a permit (Form 50A (542-1542A)) and adhere to the solid waste composting requirements stipulated in 105.7(455B,455D) through 105.14(455B,455D).

Although a permit is not required, sections 105.3 and 105.5 outline the requirements to which exempt facilities must adhere. These sections contain specific site requirements including, but not limited to, the requirement that compost facilities shall be greater than 500 feet from any existing inhabited residence, outside of wetlands, 200 feet from any public well, composting shall be performed in a manner that minimizes the formation of leachate, and “measures shall be taken to prevent water from running onto the facility from adjacent land and to prevent compost leachate and runoff from leaving the composting facility. Runoff from the composting facility must be properly managed.”

Additional Resources:

Full text of Iowa’s regulation regarding exempt compost facilities:

<http://www.legis.state.ia.us/asp/ACODocs/DOCS/3-25-2009.567.105.pdf>

Rhode Island

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit

Rhode Island requires most small-scale composters to submit a registration to the state. Certain composting activities such as applying agricultural manures or composting agricultural by-products produced on-site may be conducted without a registration. In order for an agricultural composter to accept paper, yard trimmings, or food scraps from off-site s/he must receive approval from the Department of Environmental Management.

State regulations specify that if an agricultural composer accepts leaf or yard trimmings, wood waste, recyclable paper, or shells and bones generated off-site, s/he must register and maintain operating records with the Division of Agriculture and the Department of Environmental Management. However, Rhode Island tailors agricultural food scrap composting regulations based on the amount of material accepted. Solely registration and approval by the department is allowed if an agricultural composer accepts:

- Not more than ten tons per day of pre-sorted produce and/or pre-sorted vegetative scraps
- Not more than one ton daily of pre-sorted kitchen, restaurant and/or municipal food scraps
- Not more than one half ton daily of unprocessed meat and fish wastes.

If more material is accepted than permitted above, the composer must comply with the “putrescible waste composting facilities operating standards” and apply for a full permit as stated in Rhode Island’s solid waste regulations. These regulations require the composer to demonstrate more stringent compliance with water pollution standards, erosion control practices, and a detailed facility operation plan. The application requires the creation of a site plan and map that lists any occupied structures within 250 feet of the compost pad, public water sources within 500 feet, and other information including a description of the soil type, water table, and access roads.

Rhode Island also requires that composters adhere to specific **performance standards**, although they are less encompassing than performance standards in other states such as Oregon. These performance standards prohibit illegal dumping of waste material at the composting facility. State regulations require minimization of odors, noise, drift of materials, and “risk to humans or the environment.”

Additional Resources:

- Full text of Rhode Island’s “Rules and Regulations for Agricultural Composting: <http://www.dem.ri.gov/pubs/regs/regs/agric/compost.pdf>
- Full text of Rhode Island’s solid waste composting facilities regulations: http://www.rules.state.ri.us/dar/regdocs/released/pdf/DEM/DEM_1015_.pdf (See 8.3.00 for Putrescible Waste Composting Facility - Registration Requirements)

Massachusetts

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit

Massachusetts allows certain types of composting operations to be conditionally exempt from the requirement to obtain a permit as long as specific performance standards are met. These operations include leaf composters who have less than 10,000 tons on-site at one time. Many other types of on-farm composting, including up to 20 cubic yards per day of vegetative scraps or 5 tons per day of food material, are permitted if a registration is submitted to the Massachusetts Department of Food and Agriculture and performance standards are met.

Massachusetts regulations state that agricultural composters may accept materials from off-site upon submitting a registration and complying with the policies outlined by the Department of Food and Agriculture. The Department of Food and Agriculture considers applications based on the location of the composting operation, the operator’s willingness to allow site visits, and the operator’s knowledge of composting practices. If the Department accepts the application, the compost operation may accept:

- leaf and yard waste
- wood wastes
- clean newspaper or cardboard
- clean, compostable (i.e. thin) shells, and clean bones
- non-agricultural sources of manures and animal bedding materials
- less than 20 cubic yards or less than 10 tons per day of vegetative material
- less than 10 cubic yards or less than 5 tons per day of food material.

In order to apply for a permit, the composter must comply with the site suitability criteria found in 310 CMR 16.40(3), (4) and (5). These regulations require a general description of the recyclable or compostable material, identification of the quantity, quality and sources of the recyclable or compostable material, the proposed method(s) for recycling or composting the material, and appropriate documentation that markets or uses exist for the compost, recyclable materials or products, among other requirements.

Additional Resources:

- Full text of Massachusetts Site Assignment Regulations for Solid Waste Facilities: <http://www.mass.gov/dep/recycle/laws/310cmr16.htm#16.40>
- Information about Massachusetts On-Farm Composting from The Department of Food and Agriculture: <http://www.mass.gov/agr/programs/compost/>

Ban on yard trimmings in landfills or incinerators

Massachusetts bans disposal or incineration of yard trimmings in addition to other materials. State regulations give the state Department of Environmental Protection authority to restrict the “disposal of [a material if] the material presents a potential adverse impact to public health, safety or the environment. In addition, the department may create a restriction or prohibition of a specific material if the restriction “will result in the extension of the useful life or capacity of a facility or class of facilities.” Restricted materials include, but are not limited to, lead batteries, leaves and other yard trimmings, recyclable paper, aluminum, and tires.

Massachusetts has encompassing legislation that prevents many materials from entering the solid waste stream. Massachusetts’ regulations state that “No person shall dispose, transfer for disposal, or contract for disposal” any of the restricted materials listed in the regulations. In addition, no landfill, transfer facility or combustion facility shall accept the restricted material except to handle, recycle or compost the material in accordance with a plan submitted to the Department of Environmental Protection.

Additional Resources:

- Full text of relevant Massachusetts regulations are found in chapter 310 Code of Massachusetts Regulations 19.017: Waste Disposal Ban Regulation
- The Massachusetts Department of Environmental Protection has a website that explains the bans: <http://www.mass.gov/dep/recycle/laws/bansreg.htm>

New York

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit

New York requires agricultural composters who accept any amount of food scraps from off-site to apply for a permit. In addition to the permit requirement, composters must adhere to specific performance standards including methods of vector and pathogen reduction. Some non-food materials, including animal manure and no more than 3,000 cubic yards of yard trimmings per year, may be conditionally exempt from the permit requirement.

All agricultural composters who accept food scraps (which are referred to as “source separated organic waste” or S.S.O.W. in New York regulations) must submit an application for a permit, which includes detailed information such as a map of the facility, drainage characteristics, processing and storage areas, a description of access roads, pre-processing and post-processing methods, and dimensions of the windrows. New York regulations also specify that applications describe the point of generation of the food scraps accepted as well as outline a plan to reduce pathogenic organism content, among other requirements.

Additional Resources:

- Full text of compost facility regulations: <http://www.dec.ny.gov/regs/4411.html#14688>

Pennsylvania

Ban on yard trimmings in landfills

Pennsylvania, like many other states, has regulations that prohibit yard trimmings in landfills. Pennsylvania’s ban is less encompassing than many states, including Massachusetts and Minnesota, which ban yard trimmings in landfills regardless of their source of generation. Pennsylvania has prohibited yard trimmings in landfills since 1990.

Additional Resources:

- Pennsylvania Department of the Environment document describing Pennsylvania’s Municipal Waste Planning, Recycling And Waste Reduction Act, which has been amended to prohibit yard trimmings in landfills:
<http://www.dep.state.pa.us/dep/deputate/airwaste/WM/Recycle/FACTS/act101.htm>
- Full text of the law is available at:
<http://www.pacode.com/secure/data/025/chapter272/chap272toc.html> Subsection E “§ 272.422 refers to waste diversion.

On-farm, small-scale food scrap composting, and exemptions from the requirement to obtain a permit

Pennsylvania has made a general permit available that will allow farmers to compost “yard waste, source-separated food scraps from food markets, grocery stores, food banks, food distribution centers, school cafeterias, and institutions, source-separated newspaper, and source-separated corrugated paper

(cardboard).” After composting, the material is no longer considered waste and the farmer can sell or distribute the material.

In order to qualify for a general permit, the compost facility cannot exceed 5 acres, it cannot accept more than 500 tons or 1,000 cubic yards per year of source-separated food waste and cannot accept more than 3,000 cubic yards of total material.

The general permit requires that the applicant submit the names and locations of the off-site waste generators including types and quantities of waste received. The permit also requires a site plan of the compost facility and a description of the procedures used to assure compost quality.

The permit requires compost to be in windrows, aerated static piles, or in-vessel. Windrows must maintain a temperature of 55 degrees C for 15 days; aerated static piles and in-vessel systems must maintain that temperature for 72 consecutive hours.

Incorporation or mixing of incoming food waste must occur within 24 hours of receipt at the compost operation, all other material must be incorporated within one week.

The compost operation must be placed on a well-drained area with a workable slope of 2-4%.

The compost pad options include “a compacted mixture of select granular material with adequate fine-grained particles to bind it together and reduce permeability, using lime stabilized soil blends, and paving with concrete, asphalt or geosynthetics.”

The permit also requires that the compost operation cannot be within a 100 year floodplain, 300 feet of an “exceptional value wetland,” within 100 feet of a wetland other than an exceptional value wetland, within 300 feet from an occupied dwelling, within 50 feet of a property line, or within 100 feet of a perennial stream.

Additional Resource:

- <http://www.pacode.com/secure/data/025/chapter281/chap281toc.html>

Minnesota

Compostable bag law and yard trimming disposal ban

Minnesota passed a law in 2009 that mandates all yard trimmings generated in the Twin Cities Metropolitan Area cannot be collected in plastic bags. The intent of the law is to prevent non-biodegradable plastic from entering composting facilities. The compostable bag law was an amendment to the existing yard trimming diversion law that went into effect statewide in 1994. The yard trimming diversion law stipulates that yard trimmings may not be sent to landfills and instead must be composted.

Additional Information:

- Link to PDF of Minnesota’s 2009 amendments to yard trimming prohibitions: <https://www.revisor.mn.gov/data/revisor/statute/2009/115A/2009-115A.931.pdf>.
- Great composite of information regarding yard waste bans: <http://www.cool2012.com/community/policies/>

- News clippings regarding the Minnesota's compostable bag requirement:
 - <http://www.startribune.com/local/64856077.html> - The Star Tribune
 - http://www.kare11.com/news/news_article.aspx?storyid=826912 – Local TV News Coverage
 - <http://www.rethinkrecycling.com/residents/throw-buy/materials-name/yard-waste> - Recycling advocacy organization in the Twin Cities
 - July 2009 Issue of *BioCycle*. Reproduced at http://www.ci.orono.mn.us/recent_news.htm

Other: San Francisco Mandatory Composting Law

San Francisco has some of the most progressive recycling regulations in the country. These regulations were further strengthened in June 2009 when the Board of Supervisors passed an ordinance requiring all city residents to separate food scraps, recyclable material, and trash into three separate curbside containers. Starting in 2011 the City will be able to impose fines on those who do not effectively separate these materials. The fine will be \$100 for small businesses and single occupancy homes and up to \$1,000 for large businesses and multi-unit buildings.

Additional Information:

- An article describing the city ordinance in the New York Times:
http://www.nytimes.com/2009/06/11/us/11recycle.html?_r=1&scp=2&sq=san%20francisco%20compost&st=cse
- San Francisco Environment Code, Section 19, Mandatory Recycling Requirements:
<http://library.municode.com/index.aspx?clientId=14134&stateId=5&stateName=California>
- Language of the Ordinance as passed by the San Francisco Board of Supervisors. It contains a section about the City's zero waste goal and the importance of composting as a greenhouse gas reducing activity: <http://www.sfbos.org/ftp/uploadedfiles/bdsupvrs/ordinances09/o0100-09.pdf>

Helpful guides and general composting information

- State of Massachusetts how to guide:
<http://www.mass.gov/dep/recycle/reduce/composti.htm#athome>
- Guide from the government of the Portland Metropolitan Area:
<http://www.oregonmetro.gov/index.cfm/go/by.web/id=553/level=2>
- “Best Management Practices for Incorporating Food Residuals into Existing yard Waste Composting Operations” US Composting Council:
<http://www.compostingcouncil.org/download.php?r=46&f=4b3d51af0afb94254a6c68752142a4d8.pdf>
- Managing Food Scraps at Institutions and Agencies as compiled by Washington State:
<http://www.ecy.wa.gov/pubs/0607033.pdf>
- Compost resources from seattletilth.org: <http://www.seattletilth.org/learn/resources-1/compost>