

WASTE MANAGEMENT

COMPOSTING

Composting is a way to make organic wastes, many of which might end up in landfills, into useful products that improve soil tilth and provide soil nutrients. The Oregon Department of Environmental Quality (DEQ) supports and encourages commercial and agricultural composting, and is proposing to adopt new regulations that will focus on DEQ's key environmental goals, make regulations proportional to the environmental risk at each composting facility, and make the process more efficient both for DEQ and compost facility operators.

Note: The proposed rules are scheduled to be adopted in 2009. Please check DEQ's Web site at <http://www.deq.state.or.us/lq/sw/compost/index.htm> for information on both the proposed new rules and existing rules affecting agricultural composting. Contact Charlie Landman of DEQ's Land Quality Division, Portland, at 503-229-6461, or call toll-free in Oregon at 1-800-452-4011, ext. 6461, for an update on the status of the rules.

STRUCTURE OF THE NEW RULES

WHO MUST COMPLY?

All compost operations that use more than 100 tons of type 1 or type 2 feedstock per year, or 20 tons of type 3 feedstock, will be required to notify DEQ of their operations, register, and provide DEQ with basic site information and a basic operations plan, scaled to the nature of the operation. (See below for definitions of different types of feedstock.)

PERFORMANCE MEASURES

All compost operations, regardless of size or regulatory category, must comply with performance measures for protection of surface water, protection of groundwater, control of odors, reduction of pathogens, and control of vectors. All operations, whether farm-based or otherwise, will be held to the same environmental standards.

SCREENING

DEQ will screen every compost operation for environmental risk, using factors that include: size, distance to surface water, distance to groundwater, soil type, how the operation handles leachate and stormwater, proximity to neighbors, feedstocks used, the nature of operations, and compliance history. Operations that handle more than 20 tons of Type 3 feedstock per year will move directly to the operations plan approval category described below.

LOW-RISK FACILITIES

If a compost operation presents a low environmental risk, the facility must register with DEQ, pay a one-time fee, and operate in compliance with DEQ's performance measures.

SITES THAT PRESENT RISK

Sites that DEQ determines present an environmental risk must prepare an operations plan that shows how the facility will operate to meet state performance measures. DEQ and ODA will provide assistance to farmers to prepare these plans. DEQ will approve plans for commercial composters, while ODA will approve plans for farm-based composters. Once the facility has an approved plan, it will receive a composting permit. These facilities will pay an annual compliance determination fee and will be subject to oversight by either DEQ (commercial composters) or ODA (agricultural composters).

DEFINITIONS

"Composting" means the managed process of controlled biological decomposition of organic material. A managed process includes but is not limited to reducing particle size, adding moisture, manipulating piles, and performing procedures to achieve human pathogen reduction. Composting may include adding amendments beneficial to the composting process.

"Composting facility" means a site or facility composting feedstock to produce a useful product through a managed process of controlled biological decomposition. Sites and facilities that use methods such as vermiculture and vermicomposting to produce a useful product are also considered composting facilities.

"Feedstock" means materials used in a composting process to produce composted material:

- Type 1 feedstocks include source-separated yard and garden wastes, wood wastes, agricultural crop residues, wax-coated cardboard, vegetative food wastes including state-approved industrially produced vegetative food waste, and other materials the state 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 state 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. This category also includes other materials the state 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.

TECHNICAL ASSISTANCE

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

North coast, Portland area

Phone _____ 503-229-5049

North Willamette Valley, central coast area

Phone _____ 503-378-8240, ext. 227

Bend, Klamath Falls area

Phone _____ 541-388-6146, ext. 228

Pendleton, northeast Oregon area

Phone _____ 541-278-4612

South Willamette Valley, south coast area

Phone _____ 541-686-7838, ext. 245

The Dalles, Hood River area

Phone _____ 541-298-7255, ext. 40

OREGON DEPARTMENT OF AGRICULTURE

Natural Resources Division

635 Capitol St. NE

Salem, OR 97301-2532

Phone _____ 503-986-4700

Web _____ <http://oregon.gov/ODA/NRD>

DISPOSAL OF SOLID WASTES

Both federal and state law prohibit disposal of solid waste, including garbage, demolition waste, land clearing debris, or sludge, except at a site holding a solid waste disposal permit from the Oregon Department of Environmental Quality (DEQ).

PERMITS

A solid waste permit must be obtained before disposing of solid waste. The application for a permit must include completed application forms; a land use compatibility statement signed by the local government where the facility is to be located; evidence of need for the proposed disposal site; appropriate application fees; and appropriate design, operations, and monitoring plans. Solid waste must be disposed of at a permitted solid waste disposal site, unless

the material fits the exemptions stated below. Solid waste includes septic tank and cesspool pumpings, manure, vegetable or animal solid and semisolid wastes, and dead animals.

EXEMPTIONS

The following are exempt from the requirement to obtain a permit:

- materials used for fertilizer (see the “Confined Animal Feeding Operation” section of this handbook regarding manure) or other productive purposes on land in agricultural operations and for the growing or harvesting of crops and the raising of animals
- household composting operations
- inert, noncombustible materials such as soil, rock, concrete, brick, building block, tile, or asphalt paving.

SAFETY ISSUES

Agricultural wastes should be stored so as not to produce or sustain vectors (“hot spots” for environmental or health problems), transmit diseases to persons or animals, or create water or air pollution. Such wastes must be stored in a manner that will reduce and minimize the objectionable odors, unsightliness, and other nuisance conditions.

RECORD KEEPING

The holder of a solid waste disposal permit must keep records of amounts and types of waste accepted, materials received for recycling, ground water monitoring results, and other information as specified in the permit.

FINES

Violation of statute, rule, or permit may be subject to civil penalty of up to \$10,000 per day for each day of violation.

DISPOSAL OF OTHER MATERIALS

If a farmer or rancher needs to dispose of inert, noncombustible materials (which may be done without a DEQ solid waste permit), he/she may need to obtain a permit from the Division of State Lands (503-378-3805) or the US Army Corps of Engineers (503-808-4376) if the materials are to be deposited in or near a wetland, or along or into any waterway.

RECOVERY AND DISPOSAL OF DEAD ANIMALS

Note: For specific information on requirements for disposing dead animals, refer to the chapter in this handbook titled, “Disposing of Dead Animals.”

For information about the recovery and disposal of dead animals, farmers and ranchers can view DEQ’s survey results on “Disposal and Recovery of Animal Mortality and

Byproducts” at <http://www.deq.state.or.us/wmc/solwaste/animalmortality.html>. To receive a copy of this survey by mail, call the DEQ technical assistance staff closest to you.

TECHNICAL ASSISTANCE

Solid waste staff at DEQ <http://www.deq.state.or.us> can provide technical assistance concerning solid waste disposal options and requirements. Contact the appropriate regional staff for answers to specific questions about solid waste disposal.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

Web _____ <http://www.deq.state.or.us>

Western Region Office, Salem

Phone _____ 503-378-8240, ext. 5047

NW Region Office

Portland _____ 503-229-5263

Gresham _____ 503-667-8414

Eastern Region Office, The Dalles

Phone _____ 541-298-7255, ext. 21

FEDERAL HAZARDOUS MATERIALS REGULATIONS (HMR)

WHO MUST COMPLY?

Hazardous materials regulations apply to all farming operations, with some limited exceptions. If you operate a motor vehicle of any size to transport a commodity classified as a hazardous material, hazardous waste, or hazardous substance wholly within one state or in interstate commerce, you are subject to HMR.

HMR contain a list of hazardous materials and hazardous wastes (section 172.101). The hazardous substances are listed in an appendix to the table in section 172.101. Some examples of hazardous materials or substances are; gasoline, diesel fuel, parathion, diazinon, dursban, captan, 2,4-D and anhydrous ammonia. A hazardous material safety permit is required for some types of poison or inhalation hazards. For example, 3,500 gallons or more of anhydrous ammonia requires a permit.

HMR have several parts:

- creation of shipping papers to describe what is being transported on board each vehicle
- information about specific package type that must be used to enclose the material
- specific words/symbols that must go on the shipping papers, packages, or vehicle(s)
- specialized training for the people involved in every aspect of transporting or handling the hazardous material; as well as, security planning and training.

TECHNICAL ASSISTANCE

US DEPARTMENT OF TRANSPORTATION

Federal Motor Carrier Safety Administration (FMCSA)

530 Center St. NE, Suite 100

Salem, OR 97301

Phone _____ 503-399-5775

Fax _____ 503-399-5838

Web _____ <http://www.fmcsa.dot.gov>

Hazardous materials specialist

Phone _____ 503-692-3768

FMCSA HM safety permit

Web _____ <http://www.fmcsa.dot.gov/safety-security/hazmat/hm-permitting.htm>

Education and technical assistance

Web _____ <http://www.fmcsa.dot.gov/safety-security/hazmat/hm.htm>

PESTICIDE USE, DISTRIBUTION, TRANSPORTATION, AND STORAGE

BACKGROUND

Federal law known as FIFRA (Federal Insecticide, Fungicide, and Rodenticide Act) regulates the manufacture, registration, distribution, and use of pesticides. The worker protection standards (WPS) also establish guidelines for agricultural workers who handle pesticides or who may come into contact with pesticide-treated crops. Oregon state law governs most pesticide-related activities including the licensing and certification of pesticide applicators, consultants and pesticide dealers; implementation of the WPS; and the state registration of pesticide products.

Note: See the “Worker Protection Standard (WPS) for Pesticide Applications” section of this handbook for detailed information about this regulation for workers and pesticide handlers of pesticides in farms, forests, nurseries and greenhouses.

PRIVATE PESTICIDE APPLICATOR

Private pesticide applicators (farmers, ranchers, orchardists, etc.) are persons who purchase, use or supervise the use of restricted-use pesticides in producing an agricultural commodity on property owned or rented by themselves or their employer. Private pesticide applicators must obtain initial certification by successfully completing a written examination. Once certification has been obtained, the applicator is required to obtain a private pesticide applicator’s license and pay the accompanying fee. The license is valid for five years and recertification is required every five years. Recertification may be accomplished by attending 16 hours of ODA accredited continuing education or by retaking the certification examination.

Contact Oregon Department of Agriculture (ODA), Pesticides Division, 503-986-4635, or visit the Web site <http://oregon.gov/ODA/PEST>, for information on private pesticide applicator certification and licensing.

CUSTOM APPLICATIONS

If you hire a business to make pesticide applications for your agricultural operation, the business you hire must be licensed as a commercial pesticide operator and the person actually conducting the application must be licensed as a commercial pesticide applicator or commercial pesticide trainee. These licenses are issued by ODA Pesticides Division annually. Each license must reflect the category of work being done (e.g., ag-herbicide, ag-insecticide, fungicide, etc.). Commercial pesticide applicator licenses require 40 hours of ODA accredited continuing education every five years or retaking of the certification examinations in each category of work. Commercial pesticide trainees are not certified applicators. Certain restrictions and specific conditions of supervision are required of trainees.

PESTICIDE DEALERS

Persons who offer for sale or distribution any restricted use pesticide (RUP) are required to obtain a pesticide dealer license from ODA Pesticides Division. This is an annual license for each dealer location. Record keeping related to the sales or distribution of RUPs is required of each pesticide dealer.

PESTICIDE USE REPORTING

The 1999 Oregon Legislature adopted statutes establishing a comprehensive, statewide pesticide use reporting system (PURS). The 2005 Oregon Legislature provided funding to make the system operational. The only pesticide products exempted from the reporting system are those classified as antimicrobials. The use of all other pesticide products in producing or preserving an agricultural or forestry crop must be reported into PURS, through a specific Internet site. This site became operational in January 2007. For current status and requirements, please contact the Oregon Department of Agriculture Pesticides Division at 503-986-4635 or online at <http://oregon.gov/ODA/PEST>.

ENDANGERED SPECIES ACT

Meeting federal Endangered Species Act (ESA) requirements essentially requires a farmer to apply pesticides in concert with the pesticide label and any county-specific bulletins available. ESA could also affect farming and forestry practices which alter the habitat of listed endangered species. Applying a pesticide in accordance with the approved label does not protect the applicator from liability if there is a "take" of ESA listed species. Reference

to CFR and law DOI-50 CFR 402, ESA 7 [16 USC 1536] and 9 [16 USC 1538]. To obtain a copy of Protecting Endangered Species from Pesticides (EPA-735-F-9 4-014) or any other bulletins or fact sheets, call the EPA Hotline at 800-424-9346 or 800-535-0202.

CLEAN WATER ACT

Making pesticide applications which affect waterbodies or waterways may require the issuance of a National Pollutant Discharge Elimination System (NPDES) permit to be in compliance with the federal Clean Water Act. Always read and follow the pesticide label completely. Contact DEQ at 503-229-5657 for more information on the need for a NPDES permit for pesticide applications in Oregon.

SAFETY AND TRAINING

All pesticides must be used only as directed on the label. Minors under the age of 18 cannot apply pesticides as a licensed pesticide applicator. As described above, private pesticide applicators and commercial pesticide applicators have different pesticide license requirements for initial certification and subsequent recertification. Persons who are not required to be licensed pesticide applicators and may conduct pesticide applications are still required to have all appropriate training necessary to conduct the pesticide application correctly. This may require additional worker training in WPS compliance, respirator fit testing and maintenance of respirators, reading and understanding material safety data sheets (MSDS), recognition of pesticide poisoning, field or structure posting requirements, etc. ODA Pesticides Division investigates allegations of pesticide misuse. Training records of pesticide applicators help substantiate adequate knowledge by the applicator. Employee training records are required by OR-OSHA. ODA Pesticides Division and OR-OSHA may work together to address employer-employee pesticide related issues including the WPS.

The law requires investigation by Oregon OSHA regarding employee complaints that may be related to pesticide use, re-entry into areas treated with pesticides, or accidents. A record must be kept by the employer of all pesticide worker training provided and any injury that results in medical treatment, loss of consciousness, restriction of work or motion, or transfer to another job.

Note: See the section on "Worker Health and Safety" in this handbook or contact OR-OSHA at 503-378-3272 for further information.

PESTICIDE STORAGE

Pesticides should be stored in a cool, dry, well-ventilated and well-lit room or building, insulated to prevent freezing or overheating. The area should be fireproof with a sealed cement floor. The area should be locked to prevent entry by children or unauthorized persons. Warning signs should be posted on doors and windows. All pesticides should be stored in the original containers, away from food, feed, seed, or animals. For more information about the storage of pesticides, contact the Oregon state fire marshal at 503-373-1540 or OR-OSHA at 503-378-3272.

HOW TO MANAGE EMPTY PESTICIDE CONTAINERS

Contaminated, empty containers (unrinsed containers) are "hazardous wastes" unless they are accepted by a pesticide distributor or manufacturer for refill or are decontaminated. If discarded, contaminated containers must be disposed of as hazardous waste. This expensive practice can be avoided by decontaminating them. At the time of emptying, decontaminate rigid containers such as plastic pails or drums, metal pails or drums, and, fiber containers by:

1. Pressure or multiple rinsing (multiple rinse with the appropriate diluent at least three times, or as often as necessary to make the container clean; if possible, multiple rinse nonrigid containers such as paper containers lined with plastic or foil). Always use this rinsate for your next batch of pesticide spray mix.
2. Visually verifying that the residues have been removed from the inside and outside of the containers.
3. Drying (the container's interior surfaces should be dried before crushing).
4. Crushing or physically altering, such as puncturing, the containers.

Note: One- and five-gallon metal containers are to be punctured with at least three one inch holes in the top and bottom before crushing. Thirty- and 55-gallon containers are required to have both the tops and bottoms cut out and then flattened. Plastic containers do not need to be crushed.

Decontaminated containers can and should be recycled. For more information on the collection and recycling of decontaminated metal or plastic pesticide containers contact the Oregon Agricultural Chemicals and Fertilizers Association (OACFA) at 503-370-7024.

If you reuse your rinsates and avoid generating excess spray mixtures and purchase only the amount of pesticide you need, then you have no wastes to dispose of.

However, if you have unusable pesticide-containing materials, and they cannot be reused, then disposal is your only option. Consult DEQ for the factsheet, "How to dispose of unusable or unwanted pesticide spray solutions, pesticide-contaminated rinsewaters and pesticide-containing absorbent." The fact sheet is available on DEQ's Web site, <http://www.deq.state.or.us/lq/hw/pesticide.htm>.

OTHER USES

In addition to pesticide regulations administered by ODA, the Oregon Department of Forestry (ODF) also regulates application of chemicals, including pesticides, to private and state-owned timber lands through the Forest Practices Act (FPA). Pre-notification to ODF of pesticide applications is required, and in some instances, a site management plan will need to be approved prior to application. Questions relating to use of chemicals or pesticides in the forest environment should be directed to ODF at 503-945-7200.

TRANSPORTING PESTICIDES

The Oregon Department of Transportation (ODOT), Motor Carrier Transportation Division, regulates the transportation of hazardous materials in the state by adopting federal hazardous materials regulations, Title 49, Code of Federal Regulations for both carriers and shippers. In addition, farmers who ship or transport hazardous materials (including fertilizers, pesticides, and fuels) in amounts that require the shipment to be placarded, must develop and implement security plans. Questions concerning required shipping documents, placarding of vehicles, specifications for containers, and marking and labeling requirements for packages, should be directed to ODOT, 550 Capitol St. NE, Salem, OR 97301-2530, 503-378-3667. For information about transport security plans, call US Department of Transportation at 503-399-5775.

PESTICIDE SPILLS

Pesticide spills can cause serious environmental and health damage. The Oregon Emergency Response System (OERS), set up by the Oregon Executive Department, acts as a clearinghouse to handle emergency calls. To report spills or accidents involving pesticides, call 800-452-0311.

The Pesticide Analytical and Response Center (PARC) combines agencies with common interests regarding adverse pesticide effects on humans, animals, and the environment. PARC may also be involved in spills or accidents relating to health problems or environmental damage. For further information on PARC, 503-986-6470, or visit the Web site, <http://oregon.gov/ODA/PEST>.

SPECIFIC PESTICIDE USE RESTRICTIONS

Chemical control areas

Umatilla and Morrow counties have restrictions on the use of certain herbicides during specific times of the year. Permits for the use of such products are required. For more information contact the Oregon Department of Agriculture at 541-938-6466.

Clopyralid

Pesticide products containing the active ingredient clopyralid are prohibited from use on residential or commercial turf and ornamental sites in Oregon. Uses of clopyralid products are limited to golf courses, agricultural, cemetery, and forestry sites. Vegetative material which has been treated with a clopyralid product must not be provided for compost. For more information, contact Oregon Department of Agriculture at 503-986-4635 or <http://oregon.gov/ODA/PEST>.

TECHNICAL ASSISTANCE

OREGON DEPARTMENT OF AGRICULTURE

Pesticides Division

635 Capitol St. NE
Salem, OR 97301-2532

Phone _____ 503-986-4635

Web _____ <http://oregon.gov/ODA/PEST>

UNDERGROUND STORAGE TANKS

Concern about contaminated ground water and the threat of fire or explosion from spills or leaking underground storage tanks (USTs) led to passage of state and federal legislation (RCRA-Subtitle I; ORS 466.706-466.835) which requires the installation of corrosion control, leak detection and spill/overfill prevention equipment on USTs, as well as reporting and cleanup of contamination.

PERMITS

A General Permit Registration Certificate from the Oregon Department of Environmental Quality (DEQ), Underground Storage Tank Program, is required to operate an underground storage tank holding any regulated substance. Fuel distributors are prohibited by law from depositing fuel in an unpermitted tank.

COMPLIANCE

In order to receive an annual General Permit Registration Certificate (operating certificate), UST owners/operators must:

- Demonstrate financial responsibility. Financial responsibility is typically attained by purchasing environmental insurance for accidental spills or releases of petroleum products into the environment
- Pay annual UST fees of \$135 per tank and any outstanding civil penalties.

Tanks that do not meet 1998 technical standards for corrosion protection and spill and overfill prevention must be decommissioned by removal or closure in place. Notification to DEQ is required.

EXEMPTIONS

The following USTs are exempt from federal and state laws and regulations. A General Permit Registration Certificate to Operate is not required to obtain fuel deliveries for

- any tank under 110 gallons in capacity
- any tank holding motor fuel for farm or residential use under 1,100 gallons in capacity
- any tank holding fuel for heating purposes on-site
- any tank not used after Jan. 1, 1974, as long as all product was removed at the time.

TECHNICAL ASSISTANCE

The DEQ UST Help line is available for technical assistance in the interpretation of rules. Fact sheets about specific compliance requirements are also available.

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

UST helpline

Phone _____ 800-742-7878 or 503-229-5733

Web _____ <http://www.deq.state.or.us/lq/tanks/ust/index.htm>

WASTE TIRE USAGE

WHO MUST COMPLY?

With certain industrial exceptions, a waste tire storage site permit is required for storage of more than 100 waste tires. A waste tire carrier permit is required of all persons hauling waste tires for hire. A waste tire storage site beneficial use exemption is required for persons using 100 or more tires for a beneficial purpose (either above ground or underground). OAR Chapter 340, Division 64, regulates the storage, transportation, usage and disposal of waste tires.

PERMITS

Contact the Oregon Department of Environmental Quality (DEQ) to obtain an application for a waste tire permit or beneficial use exemption. For both, the completed application must include maps, management and contingency plans, a land use compatibility statement signed by the local government where the tire storage is to be located, and appropriate fees. DEQ will base its exemption determination on the legitimacy of the use and the potential risk to public health or the environment.

EXEMPT USES

Use of waste tires as a ballast to maintain covers on agricultural materials or at a construction site is an exempt use provided no environmental risk is created. Otherwise, if 100 or more tires are involved, a waste tire storage site permit will be required.

RECORDS

Holders of a beneficial use exemption must keep records of the number of tires used and how they are maintained. DEQ may conduct field inspections to verify compliance with permits. Permitted waste tire carriers are also required to submit to DEQ an annual report of the numbers of waste tires picked up and disposed of. Anyone handling more than 100 waste tires per year must keep a log of the tires and how they were disposed, even if a permit is not required. Records must be kept for a period of two years following disposal of tires.

FINES

Violation of statute, rule, or permit is subject to civil penalty of up to \$10,000 per occurrence.

TECHNICAL ASSISTANCE

OREGON DEPARTMENT OF ENVIRONMENTAL QUALITY

Web <http://www.oregon.gov/DEQ>

DEQ Headquarters, Portland

Mary Fritzmann Smith

Phone _____ 503-229-5409