



SENATE BILL No. 842

September 22, 1993, Introduced by Senators POLLACK, DINGELL, CARL, GEAKE, MC MANUS and KOIVISTO and referred to the Committee on Natural Resources and Environmental Affairs.

A bill to provide for the regulation and management of certain compostable materials; to prescribe the powers and duties of certain state and local agencies and officials; to authorize certain fees; and to prescribe penalties and provide remedies.

THE PEOPLE OF THE STATE OF MICHIGAN ENACT:

1 Sec. 1. This act shall be known and may be cited as the
2 "compostable materials management act".

3 Sec. 2. As used in this act, the words and phrases defined
4 in sections 3 to 5 have the meanings ascribed to them in those
5 sections.

6 Sec. 3. (1) "Aerobic" means an environment where the bio-
7 logical decomposition of organic materials is freely exposed to
8 oxygen and little offensive odor is produced.

9 (2) "Agronomic rate" means application of yard clippings or
10 compost materials in a manner that provides the nitrogen or other

1 nutrient needs of a crop, but does not overload the soil with
2 nutrients or metals that may eventually leach, limit crop growth,
3 or adversely impact soil quality, and is consistent with the
4 "generally accepted agricultural and management practices for
5 nutrient utilization" as adopted annually by the commission of
6 agriculture, pursuant to the Michigan right-to-farm act, Act
7 No. 93 of the Public Acts of 1981, being sections 286.471 to
8 286.474 of the Michigan Compiled Laws.

9 (3) "Anaerobic" means an environment where the biological
10 decomposition of organic materials is not freely exposed to
11 oxygen, and hydrogen sulfide, ammonia-like compounds, and other
12 compounds with offensive odors may be produced.

13 (4) "Bond" means a surety bond from a surety company autho-
14 rized to transact business in this state, a certificate of depos-
15 it, a cash bond, or an irrevocable letter of credit.

16 (5) "Carbonaceous yard clippings" means that portion of the
17 yard clipping stream that has high carbon content, including, but
18 not limited to, leaves, straw, hay, wood chips, sawdust, corn-
19 stalks, or unpainted Christmas trees.

20 (6) "Closure" means the permanent termination or abandonment
21 of all composting or other related activities on the site of a
22 compost facility.

23 (7) "Compost facility" or "facility" means a yard clipping
24 management area that has on location or is processing 1,500 cubic
25 yards or more annually of yard clippings where the yard clippings
26 are processed using aerobic composting technology that may

1 include physical turning, windrowing, aeration, static piles, or
2 other mechanical handling of organic matter.

3 (8) "Composting" means the process by which biological
4 decomposing of organic solid matter is carried out under con-
5 trolled aerobic conditions and which stabilizes the organic frac-
6 tion into a material that can easily and safely be stored, han-
7 dled, and used in an environmentally acceptable manner.

8 Composting may include the presence of limited anaerobic zones
9 within the material.

10 (9) "Curing" means the last stage of composting that occurs
11 after much of the readily metabolized material has decomposed.
12 Curing provides for additional stabilization by soil-dwelling
13 microorganisms.

14 (10) "Curing area" means an area where organic material that
15 has undergone the rapid initial stage of composting is further
16 stabilized into a humus-like material, typically by allowing
17 piled material to simply remain untouched for a month or more.

18 Sec. 4. (1) "Department" means the department of natural
19 resources.

20 (2) "Farm" means land, buildings, and machinery used in the
21 production of farm products.

22 (3) "Health department" means a city, county, or district
23 department of health.

24 (4) "High volume compost facility" means a location that
25 receives 50,000 or more cubic yards of yard clippings annually.

26 (5) "In vessel facility" means a composting facility that is
27 located in an enclosed structure with a rigid frame.

1 (6) "Leachate" from compost means the liquid that has come
2 in contact with or percolated through yard clippings and contains
3 extracted, dissolved, or suspended material.

4 (7) "Local unit of government" means a county, city, town-
5 ship, or village.

6 (8) "Low volume compost facility" means a location that
7 receives between 1,500 cubic yards and 10,000 cubic yards of yard
8 clippings annually.

9 (9) "Medium volume compost facility" means a location that
10 receives between 10,001 and 50,000 cubic yards of yard clippings
11 annually.

12 (10) "Nitrogenous yard clippings" means that portion of the
13 yard clippings stream that has high nitrogen content including,
14 but not limited to, grass clippings or other typically green
15 material.

16 Sec. 5. (1) "Operator" means the person responsible for the
17 operation or management of a compost facility.

18 (2) "Owner" means a person who holds an ownership interest
19 in the property on which composting occurs.

20 (3) "Permit" means a permit issued by a local unit of gov-
21 ernment issued pursuant to this act to construct or operate a
22 low, medium, or high volume compost facility.

23 (4) "Person" means an individual, partnership, corporation,
24 association, governmental entity, or other entity.

25 (5) "Windrow" means the arrangement of compostables in rows
26 to facilitate and maximize the process of aerobic composting.

1 (6) "Wood" or "woodchips" means wood and wooden products
2 that have not been painted, treated, stained, contaminated, or
3 finished in any way, including, but not limited to, pallets and
4 lumber.

5 (7) "Yard clippings" means leaves, grass clippings, vegeta-
6 ble or other garden debris, shrubbery, brush or tree trimmings
7 less than 4 feet in length and 2 inches in diameter, or woodchips
8 that can be converted to compost humus. Yard clippings do not
9 include stumps, agricultural wastes, animal waste, roots, sewage
10 sludge, or garbage.

11 Sec. 6. (1) Except as otherwise provided in this section,
12 yard clippings shall be processed in a compost facility estab-
13 lished pursuant to this act.

14 (2) The requirement of subsection (1) does not apply to any
15 of the following which does not cause a nuisance:

16 (a) A location that receives less than 1,500 cubic yards of
17 yard clippings annually, of which not more than 30% are nitroge-
18 nous yard clippings by volume.

19 (b) A location where yard clippings are directly applied to
20 agricultural lands at agronomic rates.

21 (c) A farm or commercial or residential location where only
22 yard clippings generated at that location are managed within the
23 boundaries of that location.

24 (d) A composting pilot project conducted for scientific
25 research with an accredited university or college.

26 Sec. 7. (1) A person shall not construct or operate a low,
27 medium, or high volume compost facility in this state unless the

1 compost facility applies for and obtains a permit from a local
2 unit of government issued pursuant to this act, or if the local
3 unit of government in which the compost facility is located does
4 not elect to issue permits, the person complies with section 10
5 and all other applicable sections of this act.

6 (2) The application for a permit shall contain the name and
7 residence of the applicant, the property owner, and the operator,
8 the location of the proposed or existing compost facility, and
9 other information the local unit of government considers
10 necessary.

11 (3) In addition to the requirements of subsection (2), an
12 application for a volume compost facility shall, at a minimum,
13 include all of the following:

14 (a) A vicinity map at a scale of not less than 1:1,200 with
15 the proposed facility centered in and depicting an area of not
16 less than 1 mile from the facility boundaries, clearly indicating
17 the zoning and land uses, adjacent activities, surface waters,
18 wetland, roads, airports, historic sites, residential structures,
19 churches, hospitals, schools, and business and industrial
20 settings.

21 (b) A complete set of engineering plans. Engineering plans
22 shall be submitted to the local unit of government, drawn to a
23 scale of not over 200 feet to the inch. Plans for a high and a
24 medium volume compost facility shall be approved by a registered
25 professional engineer. The plans for low, medium, and high
26 volume compost facilities shall include the following:

1 (i) The location of the facility as shown on a vicinity
2 map.

3 (ii) Design capacity of the facility expressed in the cubic
4 yards of yard clippings that the site is capable of receiving and
5 processing annually.

6 (iii) Access route, traffic patterns, location of public
7 roadways, habitable structures, and places of public use on or
8 within 2,000 feet of the site and other properties potentially
9 influenced by the facility.

10 (iv) Facility soil classification to a depth of at least 3
11 feet below original and final contour elevations.

12 (v) Topographic map detail with maximum 2-foot contour
13 intervals, a written legal description, and a site boundary map.

14 (vi) Means of limiting access to the facility, such as fenc-
15 ing, gates, berms, natural barriers, or other methods.

16 (vii) Details of a permanent method of runoff collection and
17 detention basin storage including drainage patterns, ditching,
18 and basin design calculations.

19 (viii) Detailed drawings showing existing and proposed
20 structures, equipment, including scales, if any, utilities, fire
21 hydrants available to the facility, wells, ditches, and wetlands
22 or flood plains on or within 200 feet of the facility.

23 (ix) General layout of equipment and flow pattern.

24 (x) Location, direction, size, number of windrows and loca-
25 tion of staging areas, stockpiling areas, brush storage, product
26 storage, bulking agents, active composting area, and curing
27 area.

1 (xi) A detailed narrative, in paragraph form, of the
2 facility's procedure for handling waste materials, material
3 received after operating hours, dust, odors, fire, and daily
4 cleanup procedures.

5 (c) A facility management plan, including a contingency
6 abatement plan as described in section 8.

7 (d) A description of the existing environment including veg-
8 etation, wetland, fauna, current and historical use, a general
9 description of the anticipated environmental impact of the pro-
10 posed facility, and any mitigating measures proposed to minimize
11 impact.

12 (4) A local unit of government shall make a final decision
13 as to whether to issue a permit for a compost facility within 90
14 days after the local unit of government receives an administra-
15 tively complete application. If the local unit of government
16 fails to make a final decision within 90 days, the permit shall
17 be considered issued.

18 (5) A local unit of government may provide for renewable
19 permits. A renewable permit shall be issued for a period of at
20 least 5 years. A local unit of government may revoke a permit or
21 deny a permit application for just cause.

22 (6) Notwithstanding any other section of this act, each
23 local unit of government may limit the amount of nitrogenous yard
24 clippings that a facility may receive if the local unit of gov-
25 ernment determines that there are insufficient carbonaceous yard
26 clippings on-site.

1 Sec. 8. In addition to the requirements of section 7, prior
2 to commencement of the operation of a compost facility, the
3 operator shall develop a written contingency abatement plan to
4 provide for corrections of any operational deficiencies that may
5 occur at the facility. The operator shall provide a copy of the
6 plan to the local unit of government in which the facility is to
7 operate and the county health department. The plan shall, at a
8 minimum, specify all of the following:

9 (a) Identification of supervisory personnel responsible for
10 putting the abatement plan into effect and the method by which
11 supervisory personnel may be contacted. This information shall
12 be posted on the site.

13 (b) Mechanisms by which offending odors, contaminated runoff
14 or other leachate, or other operational deficiencies will be
15 eliminated.

16 (c) Method by which incoming material will be halted, han-
17 dled, or directed to an alternate facility.

18 (d) Criteria and method by which routine operations will
19 recommence.

20 (e) A contingency plan in the event of equipment breakdown.

21 Sec. 9. (1) An ordinance passed pursuant to this act may
22 require:

23 (a) An application fee that is limited to the reasonable
24 cost of processing a permit required under section 7.

25 (b) An annual fee, that may be based on the volume of com-
26 post material received at a facility, for reasonable costs

1 incurred by the local unit of government in regulating composting
2 facilities within its jurisdiction.

3 (c) The posting of a performance bond or other financial
4 mechanism adequate to address potential liability expenses and
5 closure costs.

6 (2) A county's designated solid waste management planning
7 agency may require that the information received pursuant to
8 section 10 be accompanied by a fee that is limited to the reason-
9 able cost of maintaining those records.

10 Sec. 10. If a local unit of government in which a compost
11 facility is located or is proposed to be located does not regu-
12 late compost facilities as authorized under this act, a person
13 who seeks to operate or continue operating a facility in that
14 county shall file all of the following with a designated solid
15 waste management planning agency, or its equivalent designated by
16 the local unit of government:

17 (a) For a low volume compost facility:

18 (i) Proof of compliance with all relevant local
19 requirements.

20 (ii) All of the information required under section 7(2),
21 7(3)(a), 7(3)(b)(ix) to (xi), and 7(3)(c).

22 (iii) A certification by the owner or operator that the
23 facility will operate in full compliance with this act.

24 (b) For a medium or high volume compost facility:

25 (i) Proof of compliance with all relevant local
26 requirements.

1 (ii) All the information required under section 7(3)(a) to
2 (d).

3 (iii) A certification by the owner or operator that the
4 facility will operate in full compliance with this act.

5 Sec. 11. A compost facility shall comply with all of the
6 following isolation distances:

7 (a) The materials storage, curing, processing, and compost-
8 ing areas of a compost facility shall not be located within any
9 of the following:

10 (i) A 100-year flood plain.

11 (ii) 200 feet of a flowing or intermittent creek, stream, or
12 lake.

13 (iii) 100 feet of a private water supply well or noncommu-
14 nity water supply well.

15 (iv) 200 feet of a community water supply well.

16 (v) 100 feet of a wetland.

17 (vi) An area with the highest seasonal water table within 4
18 feet of final grade.

19 (b) The materials storage, curing, processing, and compost-
20 ing areas of all compost facilities shall be located in compli-
21 ance with wellhead protection area provisions provided for in the
22 safe drinking water act, Act No. 399 of the Public Acts of 1976,
23 being sections 325.1001 to 325.1023 of the Michigan Compiled
24 Laws.

25 (c) Composting, storage, transfer, or loading activities at
26 a compost facility shall be located in compliance with the
27 following:

1 (i) A high volume compost facility shall maintain an
2 isolation distance of at least 800 feet from the nearest property
3 line of each residence, school, hospital, or nursing home.

4 (ii) A medium volume compost facility shall maintain an iso-
5 lation distance of at least 700 feet from the nearest property
6 line of each residence, school, hospital, or nursing home.

7 (iii) A low volume compost facility shall maintain an isola-
8 tion distance of at least 450 feet from the nearest property line
9 of each residence, school, hospital, or nursing home.

10 (d) A compost facility shall include at a minimum 1 acre of
11 composting or curing pad land for every 5,000 cubic yards of
12 material on site.

13 (e) A compost facility shall retain wooded vegetation strips
14 on its perimeters to visually isolate the facility from residen-
15 tial and commercial sites and minimize the generation and impact
16 of odors.

17 (f) All site access roads for vehicles bringing compostables
18 to a compost facility shall be approved by the county road com-
19 mission for the county in which the facility is located.

20 Sec. 12. (1) A compost facility shall be operated to
21 achieve or maintain all of the following conditions within the
22 compost that the facility processes:

23 (a) Available carbon to nitrogen ratio of 20:1 to 40:1, the
24 optimal ratio being 25:1 to 30:1.

25 (b) Moisture content within the range of 40% to 65%.

26 (c) Oxygen concentration greater than 5%.

1 (d) Temperature during active composting between 110° to
2 160° Fahrenheit or 43° to 71° Celsius, the optimum being 140°
3 Fahrenheit or 60° Celsius.

4 (e) A pH range within 5.5 to 9.0, the optimal range being
5 6.5 to 8.5.

6 (f) A bulk density less than 40 pounds per cubic foot.

7 (2) The operator of a compost facility shall provide suffi-
8 cient equipment on-site or have readily available sufficient
9 equipment to manage the composting process. Temperature, mois-
10 ture content, and pH content of compost piles shall be monitored
11 regularly and site-specified turning or other aeration criteria
12 shall be developed by the compost facility operator.

13 (3) The owner or operator of a compost facility shall test
14 the final product of the facility at least annually for heavy
15 metals and organic chemicals.

16 Sec. 13. A compost facility shall meet all of the following
17 accessibility and surface condition specifications, and facility
18 operation requirements or the equivalents to these
19 specifications:

20 (a) Year-round accessibility to all storage, curing, pro-
21 cessing, and composting areas of a compost facility with a sur-
22 face capable of supporting rescue equipment, emergency vehicles,
23 and equipment necessary for the operation of the facility in
24 accordance with this act.

25 (b) Unless soils are sufficiently permeable not to allow
26 standing water, the site of composting activities shall be
27 located to provide all weather access and positive site

1 drainage. Access roads, windrow pads, curing pads, and other
2 weight bearing surfaces shall be capable of supporting proposed
3 facility equipment under both wet and dry conditions without
4 developing penetration allowing water accumulation. At a mini-
5 mum, the surface shall be prepared to include at least a 2% slope
6 in 1 direction and an engineered pad surface consisting of a min-
7 imum of 4 inches of compacted gravel over a compacted base
8 material.

9 (c) The site of all composting activities shall be con-
10 structed in a manner consistent with the requirements of the
11 county or local soil erosion and sedimentation control agency.

12 Sec. 14. A compost facility shall operate in compliance
13 with all of the following:

14 (a) Only yard clippings and other source separated materials
15 as provided in subdivision (b) may be received, processed, com-
16 posted, cured, or stored by a facility. Composting of other
17 materials at a compost facility is prohibited.

18 (b) Only yard clippings shall be received in a compost
19 facility. The department may approve other source separated
20 materials to be composted at a compost facility in an aggregate
21 amount as necessary to balance the carbon and nitrogen rates, if
22 chemical, physical, or biological features do not compromise the
23 composting process or the resulting product.

24 (c) All compost facilities for yard clippings shall use only
25 aerobic composting methods and shall operate in a manner that
26 minimizes anaerobic composting from occurring. A compost
27 facility designed for anaerobic composting or utilizing anaerobic

1 composting as a means of composting is not permitted unless
2 approved by a local unit of government or the department.

3 (d) Any bagged yard clippings received by a compost facility
4 shall be debagged within 36 hours after delivery to the
5 facility. Any nitrogenous yard clippings shall be mixed with
6 carbonaceous yard clippings within 36 hours of delivery to the
7 compost facility.

8 (e) Manage leachate surface water runoff draining from com-
9 posting operations in accordance with the applicable federal,
10 state, and county health department rules and regulations.

11 (f) The operator of a compost facility shall not allow com-
12 posted materials to accumulate for more than 3 years before being
13 removed from the site unless a longer period is approved by the
14 permitting authority or the director of the department of natural
15 resources or the director of the department of agriculture.

16 (g) Compostables are stored or maintained at a height of 8
17 feet or less unless the compost facility has a working windrow
18 turner on site capable of turning windrows greater than 8 feet.

19 (h) Maintain adequate covered waste containers to move non-
20 compostable materials to proper disposal facilities on a timely
21 and regular basis.

22 (i) An operator shall not allow debris or litter on a public
23 right-of-way or off site.

24 (j) Beginning on March 28, 1995, a compost facility shall
25 not accept yard clippings that are contained in plastic bags.

26 (k) A compost facility operator shall prevent the emission
27 of offensive odors or air contaminants in quantities or under

1 conditions that are injurious or a nuisance to public health,
2 safety, and welfare and the environment.

3 (l) Any exterior lighting at the compost facility shall be
4 shielded or capped to minimize off-site lighting.

5 (m) Noise and vibration emanating from a compost facility
6 shall not exceed standards established in statutes, ordinances,
7 and regulations of the local governmental unit, county, or the
8 state. In the absence of other generally accepted noise regula-
9 tions, the following standards apply:

10 (i) Operation of the proposed compost facility shall not
11 result in noise exceeding the following levels for specified
12 adjacent land uses when measured at the common property line
13 nearest the active work area:

14	<u>Adjacent Land Use</u>	<u>Maximum Sound Level</u>
15	Residential	75 dba
16	Commercial	85 dba
17	Industrial	90 dba

18 (ii) Objectionable noises due to intermittence, beat, fre-
19 quency, or shrillness shall be muffled so as not to become a nui-
20 sance to adjacent land uses.

21 (n) Access to the compost facility including delivery and
22 transfer of material shall be limited to operating hours when
23 operating personnel are on site. Inspections by an official of a
24 governmental unit shall be conducted during normal business
25 hours.

1 Sec. 15. (1) The operator of a medium or high volume
2 compost facility shall maintain and keep at 1 location business
3 records which include records showing all of the following:

4 (a) Compostable or other materials received by the compost
5 facility, including, but not limited to, the date and time of
6 delivery and description of the material.

7 (b) The county of origin for all materials deposited
8 on-site.

9 (c) The volume of all materials moved off site.

10 (d) Complaints received and actions taken.

11 (e) Sampling procedures and results of material tests
12 taken.

13 (2) In addition, the state or the local unit of government
14 in which the facility is located may require the maintenance of
15 any other records necessary to determine whether the compost
16 facility is being operated in accordance with this act or an
17 ordinance passed under this act.

18 Sec. 16. (1) At least 90 days prior to the date of planned
19 closure of any compost facility, the owner or operator shall
20 submit to the local unit of government a site closure plan which
21 shall include a detailed plan as to when and how the following
22 will be accomplished:

23 (a) Removal and cleaning of all facility grounds, retention
24 ponds, and drainage areas of all compost materials, construction
25 scrap, and other material related to the operation.

26 (b) Cleaning, removal, or securing of storage of all
27 vehicles, equipment, and machinery.

1 (c) Cleaning of remaining structures of compost materials,
2 dust, or other residues related to the compost facility.

3 (2) Within 45 days of receiving the plan, the local unit of
4 government shall approve or disapprove the closure plan. If the
5 plan is disapproved, the local unit of government shall specifi-
6 cally detail which portions of the plan are unacceptable, and the
7 reason it is unacceptable. If the local unit of government does
8 not approve or disapprove the plan, as required in this section,
9 the plan is approved.

10 (3) Upon completion of the closure plan, the owner and oper-
11 ator of the compost facility shall inform the local unit of gov-
12 ernment of its completion.

13 (4) Within 21 days of receiving notice of completion of the
14 closure plan the local unit of government shall either release
15 the financial security or state the reason that the closure does
16 not comply with the approved plan.

17 Sec. 17. In addition to all of the requirements of this act
18 or an ordinance promulgated under this act, a compost facility
19 remains subject to all other requirements of federal, state, and
20 local and common law.

21 Sec. 18. (1) The department, an agent of the department, or
22 an agent of a local unit of government in which a facility is
23 located may enter and inspect a location where composting is
24 occurring or where there is a reasonable belief that composting
25 is occurring anytime to determine compliance with this act or an
26 ordinance passed pursuant to this act. This right of inspection
27 includes the right to review the business records of the compost

1 facility or any other person or entity which the governmental
2 unit reasonably believes may be operating a compost facility.

3 (2) Except in an emergency, the department or governmental
4 unit shall provide 24-hour notice prior to examination of any
5 business records.

6 (3) The compost facility operator and owner including their
7 agents and employees shall cooperate fully with the governmental
8 unit with respect to any such inspection.

9 Sec. 19. (1) A person who owns or operates a compost facil-
10 ity that is subject to regulation under this act or an ordinance
11 promulgated pursuant to this act has 12 months from the effective
12 date of this act to meet the operational requirements of this act
13 and to submit a permit application as required under section 7 or
14 section 10.

15 (2) A compost facility that operated before the effective
16 date of this act, that does not meet the isolation distances con-
17 tained in section 11, may be required to implement positive odor
18 control mechanisms to abate any odor problems occurring at the
19 site.

20 Sec. 20. (1) A person may bring an action seeking injunc-
21 tive relief to compel compliance with this act.

22 (2) In addition to any other relief provided by this sec-
23 tion, the attorney general or a local unit of government may
24 petition for the imposition of a civil fine as follows:

25 (a) For a low volume compost facility \$1,000.00 per day of
26 violation.

1 (b) For a medium volume compost facility \$5,000.00 per day
2 of violation.

3 (c) For a high volume compost facility \$10,000.00 per day of
4 violation.

5 (3) In addition to any other relief provided by this sec-
6 tion, the court may order a person violating this act or the
7 rules promulgated under this act either to restore or to pay to
8 the state an amount equal to the cost of restoring the natural
9 resources of this state affected by the violation to their origi-
10 nal condition before the violation, and to pay to the state the
11 costs of surveillance and enforcement incurred by the state as a
12 result of the violation. The court also may order a facility to
13 stop receiving designated materials or categories of materials.

14 Sec. 21. A local unit of government shall not pass an ordi-
15 nance or otherwise manage compost facilities within its jurisdic-
16 tion in a manner that is more restrictive than provided in this
17 act. An ordinance passed by a county within 3 years of the
18 effective date of this act supercedes any ordinance passed by a
19 city, township, or village that is located in that county.

20 Sec. 22. The department shall establish a program to edu-
21 cate the public on the role of composting in solid waste
22 management. The program shall include specific initiatives to
23 promote reduction of yard clippings and instructional materials
24 regarding the backyard composting of yard clippings. The depart-
25 ment shall to the extent possible, utilize community groups or
26 local units of government to implement the public education
27 program.