



June 11, 2026

MEMORANDUM

TO: Board of Natural Resources

FROM: Jeffrey W. Cown, Director *JWC*
Environmental Protection Division

SUBJECT: Briefing on Proposed Amendments to the Rules for Solid Waste Management,
Subject 391-3-4

The purpose of this briefing is to coordinate with the Environmental Protection Committee and to seek input from all members of the Board on EPD's proposed amendments to the Rules for Solid Waste Management, Subject 391-3-4 ("Rules").

EPD is proposing to amend the Rules in order to align them with revisions made to the Comprehensive Solid Waste Management Act, O.C.G.A. 12-8-20 *et seq.*, effective on January 1, 2026. EPD proposes to amend the Rules by: (1) adding requirements for written verifications for zoning and consistency with solid waste management plans (391-3-4-.02 and 391-3-4-.16); (2) clarifying the posting requirement for notifications of public meetings and specifying information to be provided in siting location meeting (391-3-4-.03); and (3) removing a specific prohibition on certain landfills in response to a court decision (391-3-4-.05).

The Division will solicit public input and hold a public hearing and expects to present the amendments to the Rules to the Board for action at its September 2026 meeting.

Please find enclosed for your review and consideration:

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| ➤ Synopsis and Statement of Rationale for the proposed Amendments to the Rules for Solid Waste Management | B-2 |
| ➤ Proposed Amendments to the Rules for Solid Waste Management showing deletions with strikeouts and additions with <u>underlines</u> | B-5 |

Thank you for your attention to these proposed amendments.

**SYNOPSIS OF
PROPOSED AMENDMENTS TO THE RULES OF THE
DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION
SOLID WASTE MANAGEMENT,
SUBJECT 391-3-4**

Rule 391-3-4-.02 "Solid Waste Handling Permits." is being amended.

Purpose: The purpose of this amendment is to establish requirements for providing written verification that proposed new solid waste facilities and major modifications of existing facilities conform with local zoning/land use and are consistent with solid waste management plans adopted by the host local government. The amendment also corrects an erroneous citation.

Main Features: In subparagraphs (3)(c)4 & 5, (7)(d), and (9) added requirement that written verification related to zoning/land use and consistency with solid waste management plans conform to the requirements set forth in O.C.G.A. 12-8-24(g). In subparagraph (3)(d)4 corrected citation.

Rule 391-3-4-.03 "Public Participation." is being amended.

Purpose: The purpose of this amendment is to clarify notice and meeting requirements for beginning the process to select a site for a municipal solid waste disposal facility and for providing location and facility information once a site is selected.

Main Features: In subparagraphs (1)(a) and (2)(a), replaces the time period for providing notification of the waste needs and proposed siting public meetings from once per week for two weeks preceding the meetings, to 14 days and again at least seven days preceding the meetings. In subparagraph (1), the proposed amendments provide clarification that the waste needs meeting is only required for local governments that intend to own or operate a municipal solid waste disposal facility. Subparagraph (2) amendments provide the information to be presented at the proposed siting public meeting. This information would include the location and type of facility and the process the governing authority has for providing written verification for zoning and consistency with their solid waste management plan.

Rule 391-3-4-.05 "Criteria for Siting." is being amended.

Purpose: The purpose of this amendment is to require that written verification for conformance with local zoning/land use identifies the type of facility, describes the location of the facility, and specifically states that the facility complies with local zoning or land use ordinances or that the local jurisdiction doesn't have any zoning or land use ordinances. The amendment also removes the restriction that prohibits regional landfills from accepting waste generated outside of the county where the landfill is located if the landfill is in an area designated as a significant groundwater recharge area. This provision has not been enforced in several years because the court ruled it violated the interstate commerce clause.

Main Feature: Adds statement under subparagraph (1)(a) "Zoning" that the written verification must conform to the requirements set forth in O.C.G.A. 12-8-24(g). It also removes the requirement under siting for Significant Groundwater Recharge Areas in subparagraph (1)(i) that doesn't allow regional landfills to be located in one of these Areas if accepting waste from outside the county where the landfill is located.

Rule 391-3-4-.16 "Composting and Anaerobic Digestion Facilities" is being amended.

Purpose: The purpose of this amendment is to establish requirements for providing written verification that proposed new solid waste facilities and major modifications of existing facilities conform with local zoning/land use and are consistent with solid waste management plans adopted by the host local government. The amendment also corrects an erroneous citation.

Main Feature: In subparagraphs (6)(b) and (7)(a)4, added requirement that written verification related to zoning/land use and consistency with solid waste management plans conform to the requirements set forth in O.C.G.A. 12-8-24(g). In subparagraph (6)(b)2 corrected citation.

**Statement of Rationale
Proposed Amendments to the Rules for Solid Waste Management**

The primary reason for the proposed amendments to Subject 391-3-4 of the Solid Waste Rules is to make the Rules consistent with changes made to the Comprehensive Solid Waste Management Act during the 2025 Legislative session. These changes included:

- Requirements for written verification regarding compliance with local zoning and land use regulations;
- Requirements for written verification regarding consistency with local government solid waste management plans;
- Removing the restriction on regional landfills accepting waste outside of its boundaries if located in a significant ground-water recharge area;
- Revising provisions associated with notification for public meetings to discuss waste management needs and the location and type of waste facility proposed and the purpose of the meetings; and

Since the Division is proposing only amendments that will allow the Rules to be consistent with the changes made to the Comprehensive Solid Waste Management Act, stakeholder meetings were not held. The proposed changes in the Rules are not expected to increase costs for facilities. EPD does not anticipate any increase in workload as a result of the proposed amendments.

**PROPOSED AMENDMENTS TO THE RULES
OF GEORGIA DEPARTMENT OF NATURAL RESOURCES
ENVIRONMENTAL PROTECTION DIVISION RELATING TO
SOLID WASTE MANAGEMENT, SUBJECT 391-3-4**

The Rules of the Department of Natural Resources, Subject 391-3-4, Rules for Solid Waste Management, are hereby amended and revised for specific Rules, or such subdivisions thereof as may be indicated.

[Note: Underlined text is proposed to be added. Lined-through text is proposed for deletion.]

Rule 391-3-4-.02 “Solid Waste Handling Permits,” is amended to read as follows:

(1) Solid Waste Handling Permits Required. No person shall engage in solid waste handling or construct or operate a solid waste handling facility, except those individuals exempted from the provisions of the Georgia Comprehensive Solid Waste Management Act, under the provisions of O.C.G.A. 12-8-30.10 or O.C.G.A. 12-8-40 or those individuals who have a permit-by-Rule under Rule 391-3-4-.06, without first obtaining a permit from the Director authorizing such activity.

(a) Applicability. All new and existing solid waste handling permits.

(b) Application Completeness. The Director may issue permits for solid waste handling provided the application is judged complete and meets the requirements of the Georgia Comprehensive Solid Waste Management Act and these Rules. Solid Waste Handling Permits shall be required for, but are not limited to, persons engaged in the collection, transportation, treatment, utilization, storage, processing, or disposal of solid wastes, or any combination thereof, except as exempted by O.C.G.A. 12-8-30.10 or O.C.G.A. 12-8-40 and these Rules and shall be required for the construction or operation of all solid waste handling facilities, except as exempted by O.C.G.A. 12- 8-30.10 or O.C.G.A. 12-8-40 and these Rules.

(c) Permit Review and Schedule. As of July 1, 2018, all new permits shall be reviewed every five years. All permits issued prior to July 1, 2018 will be reviewed within five years and will then be placed on a corresponding five year review schedule.

(d) Permit Review. Each permit for a solid waste handling facility will be reviewed by the Division every five years and shall be modified to assure that the facility continues to comply with the currently applicable requirements of these Rules. The permit review will require that the permittee submit and revise Design and Operational Plans and other supporting documents, as necessary, to include any changes to reflect the facility’s current construction and operation. Permit reviews shall be filed with the Division as either a minor modification or a major modification.

1. In order for permits to remain in effect, applications for permit review shall be filed at least six (6) months, but not more than eighteen (18) months prior to the date of scheduled permit review.

2. Existing solid waste handling permits shall remain in effect during the review period.

3. If a timely and complete review package has not been submitted, the solid waste handling

facility's right to operate ceases until a complete application has been submitted.

(2) Modification or Revocation of Permits for Cause: the Director may modify or revoke any permit issued pursuant to O.C.G.A. 12-8-24 if the holder of the permit found to be in violation of any of the permit conditions; or if the holder of the permit fails to perform such activity in accordance with the approved plan; or if such activity creates a threat to human health or the environment. In the event of modification or revocation of a permit, the Director shall serve written notice of such action on the permit holder and shall set forth in such notice the reason for such action.

(3) Permit Modifications at the Request of the Permittee: all modifications of existing solid waste handling permits shall be classified as follows:

(a) Major Modifications include those changes which substantially alter the design of the facility, management practices, the types of wastes being handled, or the method of waste handling, and due to the nature of the changes, would likely have an impact on the ability of the facility to adequately protect human health and the environment. Major modifications therefore require closer review and public input than minor modifications. Major modifications shall include, but are not limited to, the following:

1. A modification which involves an expansion of an existing landfill's capacity.
2. A modification which involves a lateral expansion of a CCR surface impoundment.
3. A modification which adds a new solid waste handling process. This shall include but not be limited to the addition of an air curtain destructor, a materials recovery facility, a baling operation, a shredding operation, a processing operation, a municipal solid waste or sewage sludge composting operation, or a liquid solidification operation.
4. A modification which involves the change of a site suitability requirement which could have impacted the original siting of the facility.
5. Any other modification which the Director, in the exercise of his discretion, determines to meet the criteria set forth in Section (3)(a) of this Rule.

(b) Minor modifications include changes that do not substantially alter the permit conditions, that do not reduce the capacity of the facility to protect human health or the environment, or that enable a permittee to respond in a timely manner to common variations in the type and quantities of wastes managed, technological advancements, or changes necessary to comply with new Rules where these changes can be implemented without substantially changing design specifications or management practices in the permit. Minor modifications shall include, but are not limited to, the following:

1. Changing the name of a facility.
2. A modification which involves a change in administrative and operational information and

maintenance of operational records.

3. A modification which involves a change in the sequence of operation.
4. A modification which involves the relocation of access roads.
5. A modification which adds or deletes on-site structures.
6. A modification which involves the addition of or a change to a groundwater or surface water monitoring system.
7. A modification which involves the addition of or a change to a landfill gas monitoring system.
8. A modification which involves the addition or deletion of a permit-by-Rule facility.
9. A modification which involves the deletion of any solid waste handling facility.
10. A modification which involves the deletion of permitted capacity or acreage.
11. A modification which involves the addition of or a change to an erosion and sedimentation control system.
12. A modification which involves the addition of or a change to a closure or post- closure plan.
13. A modification which involves the addition of or a change to a method of leachate handling.
14. A modification which involves the addition of or a change to a quality assurance plan.
15. A modification which involves the change of any compliance schedule which is part of the permit.
16. A modification which involves the addition of a corrective action plan.
17. A modification which involves a change in ownership, or in the case of a corporation of over five (5) percent of the stock in a corporation holding a permit, but does not involve the transfer of the permit.
18. A modification which involves the addition of acreage for the purpose of installing monitoring systems or installing structures for mitigating environmental impacts, where the original permitted acreage provides insufficient area to complete required improvements. This modification request must be accompanied by a hydrogeological assessment as specified in Rule 391- 3-4-.05(1)(j).
19. A modification which involves the addition of or change in a soil or synthetic liner and leachate collection system to a waste unit holding a valid solid waste handling permit, if it does not require other significant site redesign.

20. A modification which involves the removal or recovery of CCR from a CCR unit for the purpose of beneficial use.

(c) All modifications of solid waste handling permits which are major modifications shall be subject to the following requirements:

1. Submission of a completed application for a permit modification.
2. Submission of supporting documents which accompany the application for a permit modification which describe the exact change to be made to the permit conditions and supporting documents referenced by the permit and which explain why the change is needed.
3. Submission of a revised design for the requested change.
4. Submission of written verification by the applicant, as required by subparagraph (1)(a) of Rule 391-3-4-.05, that the facility, as proposed to be modified, conforms to all local zoning/land use ordinances, if any. The written verification must conform to the requirements set forth in O.C.G.A. 12-8-24(g).
5. Except for Private Industry Solid Waste Disposal Facilities, after July 1, 1992, submission of written verification by the applicant that the facility, as proposed to be modified, is consistent with the local or regional solid waste management plans developed and adopted by the host local government. ~~and that the host jurisdiction and the jurisdictions generating solid waste destined to the facility can demonstrate that they are actively involved in and have a strategy for meeting the State wide goal of waste reduction by July 1, 1996.~~ The written verification shall consist of letters from the host jurisdiction and generating jurisdictions verifying consistency with the approved local solid waste plan and shall conform to the requirements set forth in O.C.G.A. 12-8-24(g).
6. Except for Private Industry Solid Waste Disposal Facilities, submission of written verification that a public hearing was held by the governing authority of the county or municipality in which the solid waste facility requesting the modification is located, not less than two weeks prior to granting approval of the modification. Submission of written verification that notice of such hearing was posted at the site of such facility and advertised in a newspaper of general circulation serving the county or counties in which the facility is located at least thirty (30) days prior to such hearing. A typed transcript of the hearing must be provided to the Division.
7. Any application for a solid waste disposal facility vertical expansion shall meet the criteria as established in O.C.G.A. 12-8-24(e)(3). Any operation of a vertical expansion shall be in accordance with conditions set forth in the modified permit. Conditions to be included in any such modified permit shall, at a minimum, include the following:
 - (i) A minimum 200 foot buffer shall be provided between the property line and the waste disposal boundary established by the vertical expansion.

(ii) Site survey control shall be provided to ensure compliance with the approved permit modification.

(iii) Erosion and sedimentation control devices shall be installed, rehabilitated, and maintained as appropriate to control all surface runoff and sediments from disturbed areas.

(iv) All areas exposed for more than three (3) months shall be vegetated.

(v) Closure plans, post-closure plan, and appropriate financial responsibility shall be maintained and updated as provided for in the approved permit modification.

(vi) All other conditions of the existing permit not in conflict with conditions (i) through (v) above.

8. With the exception of major modifications granted under subparagraph (c)7. of this Rule, all major modifications shall meet the siting and design standards applicable to new permit applications in effect on the date the modification is approved.

(d) All modifications of solid waste handling permits which are minor modifications shall be subject to the following requirements:

1. Submission of a written request by the permit holder requests a minor modification.

2. Submission of supporting documents which accompany the written modification request which describe the exact change to be made to the permit conditions and supporting documents referenced by the permit and which explain why the change is needed.

3. If applicable, submission of a revised design for the requested change.

4. For a modification involving a change in ownership covered in subparagraph (34)(b)17. above, documentation must be provided to insure compliance with subparagraph (7)(a) below.

(4) Transfer of Permits: permits are not transferable from one site or facility to another. Permits are transferable from one person to another provided a new permit application is completed by the proposed permittee, and the proposed permittee agrees to abide by all the permit conditions or outstanding orders in effect at the time of the requested transfer. Prior to the transfer of the permit, the new permittee must demonstrate compliance with Rule 391-3-4-.13. Until such time as this is demonstrated, the original permittee shall be fully responsible for financial responsibility for the facility. Unless notified otherwise by the Director, within 45 days of receipt by the Division of a properly completed request for transfer of the permit, the permit transfer shall stand approved.

(5) Applications for permits and major permit modifications under O.C.G.A. 12-8-24 shall be on forms as may be prescribed and furnished from time to time by the Division and shall be accompanied by all pertinent information as the Division may require.

(6) Material submitted shall be complete and accurate.

(7) Application for a permit or for the transfer of a permit shall contain, but shall not be limited, to the following:

(a) A sworn statement that the applicant and owner or operator, if different than applicant, for a permit or, in the case of a corporation, partnership, or association, an officer, Director, manager, or shareholder of five percent or more of stock or financial interest in said corporation, partnership, or association:

1. Has not intentionally misrepresented or concealed any material fact in the application submitted to the Director;
2. Is not attempting to obtain the permit by misrepresentation or concealment;
3. Has not been finally convicted in the State of Georgia or any federal court of any felony involving moral turpitude within three years immediately preceding the application for a permit;
4. Has not been convicted of any violations of any environmental laws punishable as a felony in any state or federal court within five years preceding the application for a permit;
5. Has not knowingly, willfully, and consistently violated the prohibitions specified in O.C.G.A. 12-8-30.7; and
6. Has not been adjudicated in contempt of any court order enforcing any federal environmental laws or any environmental laws of the State of Georgia within five years preceding the application for a permit.

(b) For a permit application, a statement that the applicant either owns the property on which the facility is to be located or had the permission of the owner to use the property for solid waste handling.

(c) For a permit application, in the case of a regional landfill or a landfill serving more than one county, a list of the areas to be served.

(d) For a permit application, written verification of zoning compliance as required by Rule 391-3-4-.05 paragraph (1)(a). The written verification must conform to the requirements set forth in O.C.G.A. 12-8-24(g).

(e) For a permit application, a site assessment as required by Rule 391-3-4-.05, except CCR units which must meet criteria in 391-3-4-.10.

(8) Applications for permits will be reviewed together with such other information as may be necessary to ascertain the effect of such solid waste handling upon air, water, and land resources and human health. Conditions under which the handling will be permitted will be specified in the permit issued.

(9) Except for Private Industry Solid Waste Disposal Facilities, each applicant for a permit shall provide written verification that the facility is consistent with the local or regional solid waste management plans developed and adopted by the host local government. The written verification shall consist of letters from the host jurisdiction and generating jurisdictions verifying consistency with the approved local solid waste plans and shall conform to the requirements set forth in O.C.G.A. 12-8-24(g).

(10) Changes to Permit Status. The Director may approve a request to modify an existing solid waste handling permit to reflect the change of a facility's operational status. Such changes can include operating, closure, and post-closure.

Authority: O.C.G.A. §. 12-8-20 *et seq.*, as amended.

Rule 391-3-4-.03 "Public Participation," is amended to read as follows:

(1) Any city, county, group of counties, or government authority beginning a process to select a site ~~for on which such county, municipality, group of counties, or government authority intends to own or operate~~ a municipal solid waste disposal facility shall first call a public meeting as described herein.

(a) Notice such meeting shall be published at least ~~once per week for two weeks~~ 14 days and again at least seven days immediately preceding the public meeting in a newspaper of general circulation serving such municipality or county.

(b) Where such proposed facility will serve a regional solid waste management authority established pursuant to O.C.G.A. 12-8-53, the notice procedure outlined in subparagraph (a) above shall be followed in each jurisdiction participating in such authority.

(c) The purpose of the public meeting shall be to discuss the waste management needs of the local government or region and to describe the siting process to be followed.

~~(2) The governing authority of any county or municipality taking action resulting in a municipal solid waste disposal facility siting decision shall notify the public as follows~~ Before a host local government verifies in writing that a proposed new public or private municipal solid waste disposal facility or a major modification expanding the permit boundaries of an existing facility is consistent with the local, multijurisdictional, or regional solid waste management plan adopted by the host local government and local zoning or land use ordinances, as required by O.C.G.A. 12-8-24(g), the governing authority of the host local government shall comply with the following notice and meeting requirements:

~~(a) Cause to be published in a newspaper of general circulation serving such city or county at least once per week for two weeks immediately preceding the date of such meeting, notice of the meeting at which the siting decision is to be made.~~ Cause a notice of the meeting at which the public will be informed of the proposed new facility or major modification expanding the permit boundaries of an existing facility to be published in a newspaper of general circulation serving

such local government. The meeting notice shall be published at least 14 days and again at least seven days preceding the date of such meeting.

(b) Such notices shall identify the governing authority of the host local government jurisdiction that will conduct the meeting and shall include state the time, place, and purpose of the meeting.

(c) The meeting shall be conducted by the governing authority taking the action.

(d) During the meeting on the proposed new facility or major modification expanding the permit boundaries of an existing facility, the governing authority of the host local government shall inform the public of:

1. The location of the proposed new facility or major modification expanding the permit boundaries of an existing facility;

2. The type of facility and operations proposed; and

3. The process by which such governing authority shall provide the written verification described in O.C.G.A. 12-8-24(g).

(3) Upon submission of an application to the Division for any municipal solid waste disposal facility for which a permit (other than a permit-by-Rule) is required, the applicant, within fifteen (15) days of the submission of said application, shall take the following actions:

(a) Publish public notice of the application in a newspaper of general circulation serving the host county if the proposed facility or expanded facility is to serve no more than one county;

(b) Publish public notice of the application in a newspaper of general circulation serving each affected if the proposed facility or expanded facility is to serve more than one county;

(c) Provide written notice of the permit application to the governing body of each affected county in subparagraph (a) or (b) above; to the governing body of each local government within subparagraph (a) or (b) above; and to the regional development center;

(d) Request that the public notice outlined herein to be displayed prominently in the courthouse of each county notified in (c) above.

(e) Upon notification by the Division that a proposed facility is suitable for the intended purpose, the host local government shall initiate a local notification and negotiation process as required in O.C.G.A. 12-8-32.

(4) The governing authority of the county or municipality will hold a public hearing not less than two weeks prior to the issuance of any permit, except for a private industry disposal facility, and notice of such hearing shall be posted at the proposed site in a location closest to the primary existing entrance or primary proposed entrance where it can be viewed unaided from a public right-of-way and advertised in a newspaper of general circulation serving the county or counties in which the proposed activity will be conducted, at least thirty (30) days prior to such hearing. A typed copy of the hearing transcript shall be submitted to the Division.

(5) Whenever the Director issues, denies, revokes, suspends, or transfers, a permit or approves a major modification of a permit for a facility, he shall notify the chief elected official of the host local government in which the facility is located or is proposed to be located.

Authority: O.C.G.A. § 12-8-20 et seq., as amended.

Rule 391-3-4-.05 “Criteria for Siting,” is amended to read as follows:

(1) The following criteria must be met for a site proposed as a solid waste handling facility:

(a) Zoning. The site must conform to all local zoning/land use ordinances. Written verification must be submitted to the Division by the applicant demonstrating that the proposed site complies with local zoning and land use ordinances, if any. This verification shall include a letter from the local governmental authority stating that the proposed site complies with local zoning or land use ordinances, if any. This verification shall be provided at the time of submission of a permit application and reaffirmed by the governmental authority prior to permit issuance. The written verification must conform to the requirements set forth in O.C.G.A. 12-8-24(g).

(b) Disposal Facility Siting Decision. Whenever any county, municipality group of counties, or authority begins a process to select a site for a municipal solid waste disposal facility, documentation shall be submitted which demonstrates compliance with O.C.G.A.12-8-26(a), and whenever the governing authority of any county or municipality takes action resulting in a publicly- or privately-owned municipal solid waste disposal facility siting decision, documentation shall be submitted which demonstrates compliance with O.C.G.A. 12-8-26(b).

(c) Airport Safety:

1. New MSWLF units or lateral expansions of existing units shall not be located within 10,000 feet (3,048 meters) of any public-use or private-use airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any public-use or private-use airport runway end used by only piston-type aircraft.

2. Owners or operators of existing MSWLF units, that are located within 10,000 feet (3,048 meters) of any public- use or private-use airport runway end used by turbojet aircraft or within 5,000 feet (1,524 meters) of any public- use or private-use airport runway end used by only piston-type aircraft must demonstrate that the units are designed and operated so that the MSWLF units do not pose a bird hazard to aircraft.

3. Owners or operators proposing to site new MSWLF units and lateral expansions within a five-mile radius of any public-use or private-use airport runway end used by turbojet or piston-type aircraft must notify the affected airport and the Federal Aviation Administration (FAA).

4. The owner or operator must place the demonstration in paragraph 2. of this section in the operating record and notify the Director that it has been placed in the operating record not later than October 1, 1993.

5. For purposes of this section:

a. "Public-use airport" means an airport open to the public without prior permission and without restrictions within the physical capacities of available facilities.

b. "Private-use airport" means an airport that is not open to the public and which may not be used without prior permission of the airport owner and which has restrictions other than the physical capacities of available facilities and such airport is shown on the Sectional Aeronautical Charts published by the U.S. Department of Commerce for Atlanta , Jacksonville, or New Orleans, which charts are dated at least one year prior to the submission of a MSWLF permit or major permit modification application.

c. "Bird hazard" means an increase in the likelihood of bird/aircraft collisions that may cause damage to the aircraft or injury to its occupants.

(d) Floodplains. A solid waste handling facility located in the 100-year floodplain shall not restrict the flow of the 100-year flood, reduce the temporary water storage capacity of the floodplain, or result in a washout of solid waste so as to pose a hazard to human health and the environment. The owner or operator must place a demonstration of compliance in the operating record and notify the Director that it has been placed in the operating record.

1. For purposes of this section:

a. "Floodplains" means the low land and relatively flat areas adjoining inland and coastal waters, including flood-prone areas of offshore islands, that are inundated by the 100-year flood.

b. "100-year flood" means a flood that has a 1-percent or greater chance of recurring in any given year or a flood of a magnitude equalled or exceeded once in 100 years on the average over a significantly long period.

c. "Washout" means the carrying away of solid waste by waters of the base flood.

(e) Wetlands. A solid waste handling facility shall not be located in wetlands, as defined by the U.S. Corps. of Engineers, unless evidence is provided to the Director, by the applicant, that use of such wetlands has been permitted or otherwise authorized under all other applicable state and federal laws and rules. The owner or operator must place a demonstration of compliance in the operating record and notify the Directory that it has been placed in the operating record.

(f) Fault Areas.

1. New landfill units and lateral expansions of existing landfills shall not be located within 200 feet (60 meters) of a fault that has had displacement in Holocene time unless the owner or operator demonstrates to the Director that an alternative setback distance of less than 200 feet (60 meters) will prevent damage to the structural integrity of the landfill unit and will be protective of human health and the environment.

2. For the purposes of this section.

- a. "Fault" means a fracture or a zone of fractures in any material along which strata on one side have been displaced with respect to that on the other side.
- b. "Displacement" means the relative movement of any two sides of a fault measured in any direction.
- c. "Holocene" means the most recent epoch of the Quaternary period, extending from the end of the Pleistocene Epoch to the present.

(g) Seismic Impact Zones.

1. New landfill units and lateral expansions shall not be located in seismic impact zones, unless the owner or operator demonstrates to the Director that all containment structures, including liners, leachate collection systems, and surface water control systems, are designed to resist the maximum horizontal acceleration in lithified earth material for the site. The owner or operator must place the demonstration in the operating record and notify the Director that it has been placed in the operating record.

2. For the purposes of this section:

- a. Seismic impact zone means an area with a ten percent or greater probability that the maximum horizontal acceleration in lithified earth material, expressed as a percentage of the earth's gravitational pull will exceed 0.10g in 250 years.
- b. Maximum horizontal acceleration in lithified earth material means the maximum expected horizontal acceleration depicted on a seismic hazard map, with a 90 percent or greater probability that the acceleration will not be exceeded in 250 years, or the maximum expected horizontal acceleration based on a site -specific seismic risk assessment.
- c. Lithified earth material means all rock, including all naturally occurring and naturally formed aggregates or masses of minerals or small particles of older rock that formed by crystallization of magma or by induration of loose sediments. This term does not include man-made materials, such as fill, concrete, and asphalt, or unconsolidated earth materials, soil, or regolith lying at or near the earth surface.

(h) Unstable areas.

1. Owners or operators of new landfill units, existing landfill units, and lateral expansions located in an unstable area must demonstrate that engineering measures have been incorporated into the landfill unit's design to ensure that the integrity of the structural components of the landfill unit will not be disrupted. The owner or operator must place the demonstration in the operating record and notify the Director that it has been placed in the operating record. The owner or operator must consider the following factors, at a minimum, when determining whether an area is unstable:

- a. On-site or local soil conditions that may result in significant differential settling;

b. On-site or local geologic or geomorphologic features; and

c. On-site or local human-made features or events (both surface and subsurface).

2. For the purposes of this section:

a. "Unstable area" means a location that is susceptible to natural or human-induced events or forces capable of impairing the integrity of some or all of the landfill structural components responsible for preventing releases from a landfill. Unstable areas can include poor foundation conditions, areas susceptible to mass movements, and karst terrains.

b. "Structural components" means liners, leachate collection systems, final covers, run-on/run-off systems, and any other component used in the construction and operation of the landfill that is necessary for protection of human health and the environment.

c. "Poor foundation conditions" means those areas where features exist which indicate that a natural or man-induced event may result in inadequate foundation support for the structural components of a landfill unit.

d. "Areas susceptible to mass movement" mean those areas of influence (i.e., areas characterized as having an active or substantial possibility of mass movement) where the movement of earth material at, beneath, or adjacent to the landfill unit, because of natural or man-induced events, results in the downslope transport of soil and rock material by means of gravitational influence. Areas of mass movement include, but are not limited to, landslides, avalanches, debris slides and flows, soil fluctuation, block sliding, and rock fall.

e. "Karst terrains" means areas where karst topography, with its characteristic surface and subterranean features, is developed as the result of dissolution of limestone, dolomite, or other soluble rock. Characteristic physiographic features present in karst terrains include, but are not limited to, sinkholes, sinking streams, caves, large springs, and blind valleys.

(i) Significant Groundwater Recharge Areas. A new municipal solid waste landfill or lateral expansion of an existing municipal solid waste landfill shall not have any part of such site located within two miles of any area that has been designated by the Director as a significant groundwater recharge area unless such municipal solid waste landfill will have a liner and leachate collection system. ~~In the case of a regional landfill which accepts solid waste generated outside the counties or special districts constituting the region or a municipal solid waste landfill which accepts solid waste generated outside the county in which the landfill is located, no part of such site shall be within any area that has been designated as a significant groundwater recharge area.~~

(j) Hydrogeological Assessment. A hydrogeological site investigation shall be conducted with the following factors, as a minimum, evaluated:

1. Distance to nearest point of public or private drinking water supply: all public water supply

wells or surface water intakes within two miles and private (domestic) water supply wells within one-half mile of a landfill must be identified;

2. Depth to the upper most aquifer: for landfills, the thickness and nature of the unsaturated zone and its ability for natural contamination control must be evaluated;

3. Uppermost aquifer gradient: for landfills, the direction and rate of flow of groundwater shall be determined in order to properly evaluate the potential for contamination at a specific site. Measurements of water levels in site exploratory borings and the preparation of water table maps are required. Borings to water are required to estimate the configuration and gradient of the uppermost aquifer;

4. Topographic setting: features which shall be provided include, but are not limited to, all upstream and downstream drainage areas affecting or affected by the proposed site, floodplains, gullies, karst conditions, wetlands, unstable soils and percent slope;

5. Geologic setting: for landfills, the depth to bedrock, the type of bedrock and the amount of fracturing and jointing in the bedrock shall be determined. In limestone or dolostone regions, karst terrain shall not be used for waste disposal. This consideration does not preclude the siting of landfills in limestone terrains, but rather is intended to prevent landfills from being sited in or adjacent to sink-holes, provided, however, that the demonstration required by subparagraph (h) has been made.

6. Hydraulic conductivity: evaluation of landfill sites shall take into consideration the hydraulic conductivity of the surface material in which the wastes are to be buried, as well as the hydraulic conductivity of the subsurface materials underlying the fill;

7. Sorption and attenuation capacity: for landfills, the sorptive characteristics of an earth material and its ability to absorb contaminants shall be determined; and

8. Distance to surface water: municipal solid waste landfills shall not be situated within two miles upgradient of any surface water intake for a public drinking water source unless engineering modifications such as liners and leachate collection systems and ground-water monitoring systems are provided.

(k) New MSWLF units shall not be located within two miles of a federally restricted military air space which is used for a bombing range unless the MSWLF was permitted and operational on July 1, 1997.

(2) Construction/Demolition waste landfills must comply with the siting criteria specified in "Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia", Circular 14, Appendix B.

(3) Industrial waste landfills permitted to receive only a single type industrial waste (monofill) or receive only a single industry's waste, must comply with the siting criteria specified in "Criteria for Performing Site Acceptability Studies for Solid Waste Landfills in Georgia", Circular 14,

Appendix A. Commercial industrial waste landfills must meet the same siting criteria as municipal solid waste landfills.

(4) A site assessment report addressing the criteria listed above shall be prepared by a geologist registered in Georgia or a geotechnical engineer registered in Georgia and submitted to the Division for review at the time of submitting a permit application. The site assessment report shall be prepared in accordance with Circular 14, 1991, (amended 1997) as published by the Georgia Geologic Survey, Georgia Environmental Protection Division.

(5) Monitoring wells and borings shall be constructed by a driller having a valid and current bond with the Water Well Standards Advisory Council.

(6) CCR units must meet the siting criteria in 391-3-4-.10.

Authority: O.C.G.A §.12-8-20 *et seq.*, as amended.

Rule 391-3-4-.16 “Composting and Anaerobic Digestion Facilities,” is amended to read as follows:

(1) Composting is a desirable means of reducing the amount of solid waste destined for disposal. All composting facilities not exempted in 391-3-4-.16(3) shall either be regulated under Permit-by-Rule in 391-3-4-.16(5)(b) or shall obtain a Solid Waste Handling Permit in accordance with either 391-3-4-.16(5)(c), 391-3-4-.16(5)(d), 391-3-4-.16(5)(e), or 391-3-4-.16(5)(f) depending on the technology employed and feedstocks processed.

(a) Composting facilities in existence on the effective date of this Rule may continue to operate until March 31, 2015 under their existing permit, or Permit-by-Rule, before demonstrating compliance under conditions (i) - (vii) of this section. Existing facilities requesting major modifications after the effective date of this Rule must fully comply with this Rule. Facilities that cannot demonstrate compliance with conditions (i) - (vii) of this section by March 31, 2015 shall initiate closure.

(i) Existing Permit-by-Rule composting facilities that meet the criteria of 391-3-4-.16(5)(b) 1. must comply with the operating standards of Class 2 Composting Facilities, but are exempted from the design standards of Class 2 Composting Facilities.

(ii) Existing permitted composting facilities that classify as Class 3 Composting Facilities in 391-3-4-.16(5)(c) 1. and 2. must comply with the operating standards of Class 3 facilities, but are exempted from the design standards of Class 3 facilities.

(iii) Existing permitted composting facilities that classify as Class 4 Composting Facilities in 391-3-4-.16(5)(d) 1. and 2. must comply with the operating standards of Class 3 and Class 4 facilities, but are exempted from the design standards of Class 3 and Class 4 facilities.

(iv) Existing permitted composting facilities that classify as Class 5 Composting Facilities in 391-3-4-.16(5)(e) 1. must comply with the operating standards of Class 3, Class 4, and Class 5

facilities, but are exempted from the design standards of Class 3, Class 4, and Class 5 facilities.

(v) Existing permitted composting facilities that classify as Class 6 In-vessel Composting and Anaerobic Digestion Facilities in 391-3-4-.16(5)(f) 1. must comply with the operating standards of Class 6 facilities, but are exempted from the design standards of Class 6 facilities.

(vi) All existing composting and anaerobic digestion facilities are exempt from the siting criteria of 391-3-4-.16(6), unless applying for a major modification as in 391-3-4-.16(7)(a) 1. or 2.

(vii) All existing composting and anaerobic digestion facilities, other than those operating as Permit-by-Rule facilities, must comply with the testing requirements of 391-3-4-.16(8).

(2) Definitions. For the purposes of this Rule:

(a) "Aerated Static Pile Composting" means a process in which decomposing organic material is placed in piles over an air distribution system to supply oxygen for the purpose of producing compost.

(b) "Agricultural Residuals" means the residuals from customary and generally accepted activities, practices, and procedures that farmers adopt, use, or engage in during the production and preparation for market of poultry, livestock, and associated farm products; and in the production and harvesting of agricultural crops, which include agronomic, horticultural, and silvicultural crops, and residuals resulting from aquacultural activities. It also includes residuals from harvesting and production of row crops and manures. The term does not include dead animals, wastewater or special wastes, such as waste oils or other lubricants, unused fertilizers, pesticides, or pesticide containers.

(c) "Anaerobic Digester" means an enclosed vessel that processes organic material under anaerobic conditions to produce biogas and digestate.

(d) "Anaerobic Digestion" means the controlled decomposition of organic material under anaerobic conditions in an anaerobic digester to produce biogas and digestate.

(e) "Backyard Composting" means composting of yard trimmings and food residuals, managed so as not to attract vectors, at residential, commercial, or industrial property by the owner or tenant for use on site. All feedstocks must be generated and composted on site.

(f) "Biogas" means gas generated by anaerobic digestion.

(g) "Compost" means a stabilized organic product produced by a controlled aerobic decomposition process that can be used as a soil additive, fertilizer, growth media or other beneficial use.

(h) "Composting Facility" means buildings, grounds and equipment dedicated to the manufacture of compost.

(i) "Contact Water" means a liquid that has passed through or emerged from raw feedstocks and materials that are being processed; liquid that has come into contact with equipment that is dedicated to the composting or anaerobic digestion process; and which contains extracted, dissolved or suspended materials. Contact water also includes condensate from gases resulting from the composting and the anaerobic digestion processes.

(j) "Curing" means, for the purposes of composting and anaerobic digestion, a continuation of the composting process after the high heat stage during which stability and maturity continue to increase. For the purposes of these regulations, compost enters the curing stage after completing the process to further reduce pathogens.

(k) "Digestate" means the residual solids or liquids remaining after organic material has been processed in an anaerobic digester.

(l) "Feedstock" means any organic material used in the production of compost or processed in an anaerobic digester. Feedstocks shall not include additives or amendments that are not part of the composting process.

(m) "Food Processing Residuals" means organic material generated as a by-product of the food-processing sector that is non-hazardous and contains no domestic wastewater. For the purposes of these regulations, the term applies to use as a feedstock in the composting or anaerobic digestion process and does not include dissolved air flotation (DAF) skimmings or fats, oil, and greases.

(n) "Food Residuals" means pre- and post-consumer food used as a feedstock in a composting or anaerobic digestion facility.

(o) "Industrial By-product" means organic materials generated by manufacturing or industrial processes that are non-hazardous, contain no domestic wastewater, and pass the paint filter test.

(p) "In-vessel Composting" means the aerobic decomposition of organic material in an enclosed container for the purpose of producing compost.

(q) "Maturity" means a measure of the degree of completion of the composting process.

(r) "Source-separated Organics" means organic material including, but not limited to, food residuals, food processing residuals, and compostable paper that has been separated from non-compostable material.

(s) "Stability" means the inverse measure of the potential for a material to rapidly decompose that is measured by indicators of microbial activity, such as carbon dioxide production, oxygen uptake, or self-heating.

(3) Exemptions.

(a) The following composting operations are exempt from a Solid Waste Handling Permit:

1. Backyard composting.
2. A facility composting only Category A feedstock.
3. A facility processing less than 40 tons per year of food residuals generated on site and composted in leak-proof containers that prohibit vector attraction and prevent nuisance odor generation.
4. Composting of food residuals and yard trimmings generated on site at a K-12 institution for educational purposes.
5. Composting of biosolids at a treatment works regulated by a National Pollutant Discharge Elimination System (NPDES) permit, Land Application System (LAS) permit, or other permit from EPD, and in which case that permit has been modified in accordance with the Georgia Rules for Water Quality Control 391-3-6-.17(3)(c) 1. to incorporate any necessary requirements for regulating the composting operation.
6. Composting of dead animals, provided such composting is in accordance with the requirements of the Georgia Dead Animal Disposal Act (O.C.G.A. § 4-5) and Georgia Department of Agriculture Rules (Chapter 40-13-5).
7. Anaerobic digestion facilities that are permitted in accordance with the Georgia Rules for Water Quality Control. These include facilities located at a wastewater treatment plant and on-farm anaerobic digesters or lagoons.
8. Manures managed in accordance with the Georgia Rules for Water Quality Control.

(4) Feedstock Categories.

(a) The categories described below are not intended to be all-inclusive. Case-by-case determinations by the Division may be necessary concerning selection of the appropriate category for a particular feedstock, including industrial by-products not elsewhere classified. Accordingly, the Division may require that analytical and/or process information be supplied by the owner or operator to assist in making such determinations. At a minimum, the Division will require applicants to provide an analysis of metals and proof of compostability of the potential feedstock, including C:N ratio and soluble salts.

1. Feedstock Category A: Yard trimmings, land-clearing debris, agricultural residuals generated and processed on site, untreated and unpainted wood, or any combination thereof.
2. Feedstock Category B: Agricultural residuals generated off site, herbivorous animal manure generated at a zoo, and/or source-separated organics.
3. Feedstock Category C: Sewage sludge and biosolids not managed as part of a treatment works under an NPDES or LAS permit.

4. Feedstock Category D: Dissolved air flotation (DAF) skimmings or sludge generated from food processing and dewatered septage.

(b) Prohibited feedstocks include:

1. Asbestos-containing wastes.
2. Biomedical wastes.
3. Painted and treated wood.
4. Any other prohibited wastes included in 391-3-4-.04(6).

(5) Design and Operating Standards for Composting Facilities by Class.

(a) Class 1 Composting Facilities

1. Facilities composting only Category A feedstock do not require a Solid Waste Handling Permit.
2. A permitted solid waste handling facility shall submit a minor modification prior to adding a Class 1 composting operation on site.

(b) Class 2 Composting Facilities

1. Facilities composting Category A and B feedstocks that meet both of the following criteria may operate under a Permit-by-Rule for Composting Facilities:

- (i) Facilities receiving less than 500 tons of Category B feedstock per calendar month.
- (ii) For Class 2 facilities, Category B feedstocks shall be restricted to exclude the receipt of non-vegetative food processing residuals and manures.

2. The design standards for Class 2 facilities include:

- (i) The composting area shall be constructed to maintain its structural integrity under operating conditions and be capable of supporting vehicular traffic.
- (ii) The composting facility shall be adequate in size and capacity to manage the projected volume of compost and residue generated. The areas for storing feedstocks prior to processing shall be clearly defined and the maximum capacity specified.
- (iii) For windrow operations, the maximum composting process windrow size and minimum composting process windrow spacing shall match the capability and requirements of the equipment used at the facility.

3. The operating standards for Class 2 facilities include:

- (i) The composting facility shall have a sign at its entrance that lists the name of the facility, hours of operation, feedstocks accepted, and emergency contact information.
- (ii) The composting facility shall have storm water control measures.
- (iii) The composting facility shall prevent flow of contact water from the active composting area into surface water and curing or finished compost areas.
- (iv) Suitable measures to control vectors shall be applied.
- (v) Suitable measures to control odors shall be applied.
- (vi) Suitable measures to prevent, control, and extinguish fires shall be applied.
- (vii) By the end of each operating day, all incoming Category B feedstock must be processed into the active composting area, transferred to leak-proof containment, or mixed with bulking material and covered in a manner that minimizes nuisance odors and scavenging by vectors.
- (viii) No material shall be stored in excess of the designated capacity.
- (ix) Storage of finished compost on site is limited to 12 months, unless approved by the Division on a case-by-case basis.
- (x) Non-compostable material and solid waste generated on site shall be stored in a waste container and then either recycled or disposed of at a permitted solid waste facility.
- (xi) Facilities accepting Category B feedstocks from off site shall track incoming feedstocks and finished compost. Records documenting compliance of the composting facility with these Rules shall be kept for a minimum of three years in a form suitable for submission to or inspection by the Division. Records shall include the weight or volume (in tons or cubic yards) of the feedstocks accepted, total compost produced, and any amount sold or used. Records shall be retained at the composting facility unless an off- site storage location is approved by the Division.
- (xii) Operation and management shall be under the supervision and control of an individual properly trained in the operation of such facilities at all times. Facility operations managers must be able to document training in the basics of composting facility operations.
- (xiii) Notice of final closure shall be provided to the Director within 60 days from final receipt of feedstock. Any site not receiving feedstock in excess of 180 days, unless properly closed or otherwise approved by the Division, shall be deemed closed and in violation of these Rules. Notice of closure shall include documentation that all feedstocks and active, curing, and final compost materials have been removed from the facility and that the site has been stabilized in

accordance with the Manual for Erosion and Sediment Control in Georgia.

(c) Class 3 Composting Facilities

1. Any composting facility that is neither exempt under 391-3-4-.16(3), nor meets the conditions for Class 2 Composting Facilities in 391-3-4-.16(5)(b), shall obtain a permit in accordance with following requirements:

2. Class 3 composting facilities may compost Category A and B feedstocks.

3. The design standards for Class 3 facilities include:

(i) The composting facility shall be designed by a professional engineer licensed to practice in Georgia.

(ii) An all-weather compost pad shall be designed, constructed, and maintained to (1) prevent ponding and impede downward migration of potential contaminants from contact water; (2) reliably transmit any free liquid present during the storage, treatment, and processing of materials laterally to a containment structure to prevent liquids from entering surface water or groundwater; (3) support vehicular traffic; and (4) prevent conditions that could contribute to or cause contamination.

(iii) Surfaces on which composting takes place shall be graded with a slope between 2% and 6% to prevent ponding of water.

(iv) The site shall be graded to prevent the flow of water from the active composting area into curing or finished compost areas.

(v) Prior to receiving feedstocks, the Division shall be provided with written certification by a professional engineer licensed to practice in Georgia, that the facility has been constructed in accordance with the approved permit. Unless notified otherwise by the Division, within 15 days of receipt of the written certification, the facility owner or operator may commence composting operations.

(vi) The owner or operator shall fully satisfy all applicable financial responsibility requirements, as provided by Chapter 391-3-4-.13. The financial assurance mechanism shall be updated at least annually for inflation and for any modifications required and approved by the Division.

(vii) An as-built survey of the facility, prepared by a Georgia-registered professional surveyor, shall be submitted with the engineering certification.

(viii) Contact water collection and removal systems shall be designed for incorporating the liquid back into the compost piles or for removal and treatment in a manner approved by the Division. Contact water may be used in the composting operation for moisture addition only in active compost piles that have not completed the process to further reduce pathogens.

(ix) The maximum composting process windrow size and minimum composting process windrow spacing shall match the capability and requirements of the equipment used at the facility.

(x) The composting facility shall submit a site-specific odor minimization plan that includes, at a minimum, the following:

(I) A complaint response protocol.

(II) A description of operating procedures for minimizing odor.

(III) A description of the processes and technologies used to control odors.

(IV) A description of procedures to monitor odor, including sampling frequencies and method(s) used to measure odors.

(xi) The composting facility shall submit a contingency plan detailing corrective or remedial actions to be taken in the event of equipment breakdown; odors; unacceptable waste delivered to the facility; spills; and other undesirable conditions such as fire, dust, noise, vectors, unusual traffic conditions, and litter. The plan shall also include the proposed emergency provisions for equipment breakdown or power failure.

4. The operating standards for Class 3 include:

(i) Operation and management shall be under the supervision and control of an individual properly trained in the operation of such facilities at all times. Facility operations managers must be able to document training in the basics of composting facility operations.

(ii) The facility shall install and maintain storm water management controls.

(iii) Suitable measures to control vectors shall be applied.

(iv) Suitable measures to prevent, control, and extinguish fires shall be applied.

(v) By the end of each operating day, all incoming Category B feedstock shall be processed into the active composting area, transferred to leak-proof containment, or mixed with bulking material and covered in a manner that minimizes nuisance odors and scavenging by vectors. Prior to being incorporated into the active composting area, feedstocks with free liquid shall be mixed with drier feedstocks, bulking material, or compost so that the liquid is promptly absorbed and not allowed to flow from the mixing area.

(vi) Compost processing time and temperatures shall be sufficient to kill weed seeds, reduce pathogens and vector attraction, and produce compost that meets the stability necessary for the intended use. Pathogen and vector attraction reduction compliance shall be achieved as follows:

(I) Windrow composting: The compost material shall be maintained at a minimum average

temperature of 55°C or higher for 15 days or longer. During the period when the compost is maintained at 55°C or higher, there shall be a minimum of five turnings of the windrow. The 15 or more days at or above 55°C do not have to be continuous.

(II) Aerated static pile or in-vessel composting: The compost material shall be maintained at a minimum average temperature of 55°C or higher for three consecutive days, followed by at least 14 days at over 40°C with an average temperature of over 45°C.

(vii) Facilities using aerated static piles shall insulate piles to ensure that all parts of the decomposing material reach and maintain temperatures at or above 55°C for a minimum of three days.

(viii) The all-weather compost pad must be maintained to its specified slope and resist deformation that would cause ponding or increase infiltration of contact water.

(ix) Storage of finished compost on site is limited to 12 months, unless approved by the Division on a case-by-case basis.

(x) Non-compostable material and solid waste generated on site shall be stored in a waste container and then either recycled or disposed of at a permitted solid waste facility.

(xi) Records shall be maintained to track incoming feedstocks and finished compost. By September 1 of each year, operators shall submit a report to the Division that includes the weight or volume (in tons or cubic yards) of the feedstocks accepted, total compost produced, and any amount sold or used in the previous fiscal year (July 1 - June 30).

(xii) Records documenting compliance of the composting facility with these Rules shall be kept for a minimum of three years in a form suitable for submission to or inspection by the Division. Records shall be retained at the composting facility unless an off-site storage location is approved by the Division.

(xiii) A facility odor minimization plan shall be maintained and updated as stipulated in the following:

(I) The odor impact minimization plan shall be revised and submitted to the Division for any major modification as described in 391-3-4-.16(7).

(II) The odor impact minimization plan shall be reviewed annually by the operator to determine if any revisions are necessary.

(III) The odor impact minimization plan and results of the odor monitoring shall be used by the Division to determine whether the facility is following the procedures approved in its permit and its design and operational plan.

(xiv) The composting facility shall have a sign at its entrance that lists the name of the facility, permit number, days and hours of operation, feedstocks accepted, and emergency contact

information.

(xv) The composting facility shall be closed in accordance with Rule 391-3-4-.11.

(d) Class 4 Composting Facilities

1. Any composting facility that is neither exempt under 391-3-4-.16(2), nor meets the conditions for Permit-by-Rule for Composting Facilities in 391-3-4-.16(4)(b), shall obtain a permit in accordance with following requirements:

2. Class 4 composting facilities may compost Category A, B, and C feedstocks.

3. Class 4 composting facilities shall comply with the design and operating standards for Class 3 composting facilities and the additional design and operating standards listed below:

(i) The design standards for Class 4 include:

(I) The compost pad for the receiving, mixing, and active composting areas shall prohibit ponding and limit infiltration of contact water by being uniformly graded at a minimum slope of 2%. The compost pad shall contain a layer to limit infiltration. This layer shall either be one foot in thickness with a hydraulic conductivity not exceeding 1×10^{-5} cm/sec or an approved alternative which meets or exceeds this specification for the purpose of limiting infiltration. The layer to limit infiltration shall be constructed on a prepared and compacted subsurface, and overlain by a wearing surface that will resist deformation, prevent ponding, and prevent the infiltration of contact water. A minimum separation of five feet is required between the bottom of the infiltration layer and the seasonal high water table. Industrial waste proposed for the use in the construction of the compost pad shall be approved by the Division.

(II) Contact water shall be contained in a tank with secondary containment or in an impoundment with a liner system consisting of a one-foot layer of compacted soil with a hydraulic conductivity of no more than 1×10^{-7} cm/sec. The liner shall be overlain by a protective marker layer of sand or stone no less than one foot in thickness. An alternate liner system with the equivalent ability to limit infiltration may be approved by the Division.

(ii) The operating standards for Class 4 include:

(I) The composting pad shall be maintained and repaired as needed. Cracks or other defects identified in the wearing surface shall be promptly repaired under the supervision of the facility manager. Any repairs or reconstruction of the layer limiting infiltration shall be completed under the supervision of a professional engineer, who shall prepare a report and certification of the repairs. A copy of the report(s) shall be maintained in the facility's operating records. Compost materials shall not be placed in areas with damage to the infiltration layer, and berms or other diversions shall be installed to prevent run-on of contact water into these areas.

(II) Facilities that compost biosolids or sewage sludge shall comply with all applicable federal

regulations regarding sludge management at 40 CFR 501; 40 CFR 503; and 40 CFR 503, Subpart B.

(III) Groundwater monitoring systems shall be designed and installed in accordance with 391-3-4-14. Additionally:

(A) Monitoring parameters shall be established based on the hydrogeologic data related to the site, the type of feedstocks accepted at the facility, and waste characterization analyses performed on incoming feedstocks.

(B) Monitoring shall be conducted semi-annually, at a minimum.

(IV) By the end of each operating day, all incoming Category B and C feedstocks shall be processed into the active composting pile, transferred to leak-proof containment, or mixed with bulking material and covered in a manner that minimizes nuisance odors and scavenging by vectors.

(e) Class 5 Composting Facilities

1. Class 5 composting facilities may compost Category A, B, C, and D feedstocks.

2. Class 5 composting facilities shall comply with the design and operating standards for Class 3 and 4 composting facilities and the additional design and operating standards listed below:

(i) The design standards for Class 5 include: Reserved.

(ii) The operating standards for Class 5 include:

(I) The feedstock receiving and mixing areas shall be in an enclosed structure. The receiving area of the composting operation shall be constructed of asphalt, concrete, or a composite liner system. Receiving entrances shall be closed and under negative pressure during receipt and processing of Category D feedstocks.

(II) By the end of each operating day, all incoming Category B, C, and D feedstocks shall be processed into the active composting pile, transferred to leak-proof containment, or mixed with bulking material to minimize nuisance odors and scavenging by vectors.

(f) Class 6 In-vessel Composting and Anaerobic Digestion Facilities

1. Class 6 facilities employ in-vessel composting or anaerobic digestion. These facilities may process Category A, B, C, and D feedstocks.

2. The design standards for Class 6 facilities include:

(i) A description of the basic site design.

(ii) A description of the type of technology to be used, including a copy of the drawings and

specifications of the composting or digestion equipment and a process flow diagram that includes the types of the major material handling equipment and material flow.

(iii) A description of the unit's requirements for power, water, and wastewater removal.

(iv) A description of the type and quantities of feedstock to be processed.

(v) A description of the storage capacity for feedstocks, products and digestate, if applicable.

(vi) Anticipated annual operational capacity in cubic yards or gallons per day.

(vii) A description of the proposed methods used to control spills, run-off, litter, odors, dust, rodents, and insects, including the storage of feedstocks, compost and digestate, leak-prevention and spill release measures, and the methods to monitor effectiveness for control measures.

(viii) The facility shall have a site-specific odor minimization plan that includes, at a minimum, the following:

(I) A complaint response protocol.

(II) A description of operating procedures for minimizing odor.

(III) A description of the processes and technologies used to control odors.

(ix) A contingency plan detailing corrective or remedial actions to be taken in the event of equipment breakdown; odors; unacceptable waste delivered to the facility; spills; and other undesirable conditions such as fire, dust, noise, vectors, unusual traffic conditions, and litter. The plan shall also include the proposed emergency provisions for equipment breakdown or power failure.

3. The operating standards for Class 6 facilities include:

(i) Operation and management shall be under the supervision and control of an individual properly trained in the operation of such facilities at all times. Facility operations managers must be able to document training in the basics of composting and/or anaerobic digestion operations through a course approved by the Division.

(ii) The facility shall have a sign at its entrance that lists the name of the facility, permit number, days and hours of operation, feedstocks accepted, and emergency contact information.

(iii) The facility shall install and maintain storm water management controls.

(iv) Suitable measures to control vectors shall be applied.

(v) Suitable measures to prevent, control, and extinguish fires shall be applied.

(vi) The operator shall take measures to prevent spillage and promptly respond to any leaks or spills that occur.

(vii) By the end of each operating day, all incoming Category B, C, and D feedstocks shall be processed, transferred to leak-proof containment, or mixed with bulking material and covered in a manner that minimizes odors and scavenging by vectors. For facilities with an anaerobic digester, the feedstocks can be stored in leak-proof containers with lids that prevent vector or odor problems for a period of time to allow for proper organic loading of the digester. This time period shall not exceed four days.

(viii) Digestate not contained in an in-vessel digester, sealed container, or sealed structure, shall, within 24 hours, be removed from the site and either disposed or processed at a permitted solid waste facility or incorporated into a permitted, on-site compost operation. Digestate may be stored in a sealed container or sealed structure for up to nine months. By-products from the separation of digestate shall be stored separately and in sealed containers.

(ix) Non-compostable waste shall be stored in a waste container and then recycled or disposed of at a permitted solid waste facility.

(x) For in-vessel composting operations, the operator shall ensure that the composting process reduces pathogens. The compost material shall be maintained at a minimum average temperature of 55°C or higher for three consecutive days, followed by at least 14 days at over 40°C with an average temperature of over 45°C.

(xi) Facilities employing anaerobic digestion must minimize the uncontrolled release of biogas.

(xii) Notice of final closure shall be provided to the Director within 60 days from final receipt of feedstock. Any site not receiving feedstock in excess of 180 days, unless properly closed or otherwise approved by the Division, shall be deemed closed and in violation of these Rules. Notice of closure shall include documentation that all feedstocks, compost materials and digestate have been removed from the facility and that the site has been stabilized in accordance with the Manual for Erosion and Sediment Control in Georgia.

(6) Criteria for Siting Composting Facilities.

(a) Class 2 composting facilities shall comply with the following criteria:

1. The facility shall not be located in the 100-year floodplain.
2. A 50-foot undisturbed buffer shall be maintained between the composting operation and the property line.
3. A 200-foot buffer shall be maintained between the composting operation and any adjacent residences and/or drinking water supply wells.
4. A 50-foot buffer shall be maintained between the composting operation and all streams.

5. A description of surrounding land uses up to a ½-mile radius shall be provided.
6. Airport safety restrictions, as required by Rule 391-3-4-.05(1)(c) for MSWLF units, shall be met.

(b) Classes 3-6 composting facilities and anaerobic digestion facilities shall comply with the following criteria:

1. The facility shall submit written verification of zoning compliance as required by Rule 391-3-4-.05 paragraph (1)(a)~~a letter~~ from the local government authority stating that the proposed facility complies with local zoning and land use ordinances. The written verification must conform to the requirements set forth in O.C.G.A. 12-8-24(g).

2. The facility shall submit written verification by the applicant that the facility is consistent with the local or regional solid waste management plan, as required in Rule 391-3-4-.02(34)(c)5. The written verification must conform to the requirements set forth in O.C.G.A. 12-8-24(g).

3. The facility shall not be located in the 100-year floodplain.

4. The facility shall submit a map of the topographic setting depicting features, including all upstream and downstream drainage areas affecting or affected by the proposed site, floodplain, gullies, karst conditions, wetlands, unstable soils, and percent slope.

5. A 100-foot undisturbed buffer shall be maintained between the composting operation and the property line.

6. A 500-foot buffer shall be maintained between the composting operation and any adjacent residences and/or any drinking water supply wells.

7. A 50-foot buffer shall be maintained between the composting operation and all streams.

8. A description of surrounding land uses up to a ½-mile radius shall be provided.

9. Airport safety restrictions as required by Rule 391-3-4-.05(1)(c) for MSWLF units, shall be met.

10. The facility shall submit a site assessment report, prepared by a professional geologist or geotechnical engineer registered in Georgia, addressing the above-listed criteria.

(c) In addition to meeting the Class 3 siting requirements, Class 4 and 5 composting facilities shall comply with the following siting criteria:

1. Submission of a hydrogeological assessment, as specified in 391-3-4-.05(1)(j) may be required.

2. Submission of an odor assessment that includes, at a minimum:

- (i) The proximity of existing odor receptors;
- (ii) An evaluation of the site and operation characteristics to determine the potential for impacts on the neighboring community from the off-site migration of odors from the proposed facility; and
- (iii) A description of the design considerations or practices to be implemented to control the potential impacts of off-site odors generated from the facility.

(7) Permit Modifications for Class 3-6 Facilities.

(a) All modifications of existing facilities shall be classified as follows:

1. Major modifications include those changes which substantially alter the design of the facility, management practices, the types or categories of feedstocks processed, or the technologies employed, and due to the nature of the changes, would likely impact the facility's ability to adequately protect human health and the environment. Major modifications, therefore, require closer review and public input than minor modifications.

2. Major modifications shall include, but are not limited to, the following:

(i) A modification which adds a new solid waste handling process. This shall include, but not be limited to, the addition of a materials recovery facility, a composting operation co-located at an anaerobic digestion facility, baling operation, shredding operation, or liquid solidification operation.

(ii) A modification which involves a change to a site suitability requirement, which could have originally impacted the siting of the facility.

3. Minor modifications include changes that do not substantially alter the permit conditions, that do not reduce the capacity of the facility to protect human health or the environment, or that do not prevent the facility from responding in a timely manner. These changes include common variations in the type and quantities of feedstocks managed, technological advancements, or changes necessary to comply with new Rules, where these changes can be implemented without substantially changing design specifications or management practices in the permit.

(i) Minor modifications shall include, but are not limited to, the following:

(I) Changing the name of the facility.

(II) A modification which involves the relocation of access roads.

(III) A modification which adds scales.

(IV) A modification which involves the addition or removal of on-site structures.

(V) A modification which involves the addition of or a change to a groundwater or surface water monitoring system.

(VI) A modification which involves the addition or removal of a Permit-by-Rule facility.

(VII) A modification which involves the removal of any solid waste handling facility.

(VIII) A modification which involves the addition of or a change to a closure or post-closure plan.

(IX) A modification which involves the addition of or a change to a method of contact water handling and/or treatment.

(X) A modification which involves the addition of a corrective action plan.

(XI) A modification which involves a change in ownership, or in the case of a corporation of over five percent of the stock in a corporation holding a permit, but does not involve the transfer of the permit.

4. All major modifications shall be subject to the following requirements:

(i) Submission of a completed application for a permit modification.

(ii) Submission of supporting documents accompanying the application for a permit modification that describe the exact change(s) to be made to the permit conditions and supporting documents referenced by the permit that explain why the change is needed.

(iii) Submission of a revised design for the requested change(s).

(iv) Submission of written verification by the applicant, as required by Rule 391-3-4-.05(1)(a), that the facility, as proposed to be modified, conforms to all local zoning/land use ordinances, if any. The written verification must conform to the requirements set forth in O.C.G.A. 12-8-24(g).

(v) Submission of written verification by the applicant that the facility, as proposed to be modified, is consistent with local or regional solid waste management plans developed and adopted by the host local government. The verification shall consist of letters from the host jurisdiction and generating jurisdictions verifying consistency with the approved local solid waste plan and shall conform to the requirements set forth in O.C.G.A. 12-8-24(g).

(vi) Submission of written verification by the applicant that a public hearing was held by the governing authority of the county or municipality in which the facility requesting the modification is located, not less than two weeks prior to granting approval of the modification. Submission of a typed transcript of the hearing. Submission of written verification that notice of such hearing was posted at the site of such facility and advertised in a newspaper of general circulation serving the county or counties in which the facility is located at least 30 days prior to

such hearing.

(8) Testing.

(a) Class 3-6 composting facilities and anaerobic digestion facilities that compost on site shall meet the following test standards and requirements:

1. Samples and measurements taken for the purpose of product testing shall be representative of the composting activity and shall be conducted in accordance with methods and procedures approved by the Director.

2. The minimum number of samples that shall be collected and analyzed is shown in the table below. Samples to be analyzed shall be composted prior to the analysis.

Compost Quantity¹ (tons/yr)	Frequency
1 - 6,200	Once per quarter
6,201 - 17,500	Once every two months
Greater than 17,500	Once per month

¹Either the amount of finished compost applied to the land, prepared for sale or given away on an "as is" (wet weight) basis.

If test results show the finished product is stable and in compliance with both metals and pathogens standards for a two-year period, the facility may request a reduction in the frequency of testing, provided there are no changes in feedstocks composted at the facility. Class 3 facilities may test for pathogens and trace metals at half the frequency, but overall testing for all other characteristics must be as defined in the table above.

3. All compost shall be tested for stability in accordance with methods and procedures approved by the Director.

(i) The stability results shall be documented in the facility's operating records.

4. All compost shall be tested for the presence of pathogens in accordance with methods and procedures approved by the Director.

(i) Either the density of fecal coliform in the finished compost shall be less than 1,000 most probable number (MPN) per gram of total solids (dry weight basis), or the density of Salmonella sp. bacteria in the finished compost shall be less than three MPN per four grams of total solids (dry weight basis) before the compost may be sold, given away, or applied to the land.

5. All compost shall be analyzed for metals in accordance with methods and procedures approved by the Director.

(i) The following pollutant concentrations shall not be exceeded:

Pollutant Monthly average concentration (milligrams per kilogram) ¹

Arsenic	41
Cadmium	39
Copper	1,500
Lead	300
Mercury	17
Nickel	420
Selenium	100
Zinc	2,800

¹ On a dry weight basis.

(b) For Class 6 facilities that operate an anaerobic digester, the facility shall, at a minimum, monitor or test the following:

1. Chemical Oxygen Demand shall be tested daily if the feedstocks change on a daily basis or weekly if the feedstocks are consistent or if the digester is at steady state, with steady state being defined as the treatment level or the gas production is constant for at least three Hydraulic Retention Times (HRT).
2. Alkalinity shall be measured daily if the feedstocks change on a daily basis or weekly if the feedstocks are consistent or if the digester is at steady state, with steady state being defined as the treatment level or the gas production is constant for at least three Hydraulic Retention Times (HRT).
3. Gas production shall be monitored.

(c) Digestate that has not been analyzed for metal concentration, pathogen concentration, and any other contaminants as stipulated by the Division, or is known to contain any metal in amounts that exceed the maximum metal concentrations in 391-3-4-.16(8)(a)(5)(i), shall be designated for disposal or additional processing.

(d) The Division may approve alternative methods of compliance to meet the requirements of this section including, but not limited to, sampling frequencies.

Authority: O.C.G.A. Secs. 12-8-20 *et seq.*