



# GEORGIA

DEPARTMENT OF NATURAL RESOURCES

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## ENVIRONMENTAL PROTECTION DIVISION

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**GUIDANCE DOCUMENT FOR**  
**FIVE YEAR PERMIT REVIEWS**  
**April 2026**  
**Technical Guidance Document**

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Additional EPD management and staff provided technical review of this document.

# **GUIDANCE DOCUMENT FOR FIVE YEAR PERMIT REVIEWS**

**April 2026**

This document provides technical guidance for conducting and evaluating five-year permit reviews for facilities regulated under applicable Georgia statutes and regulations administered by the Solid Waste and Recovered Materials and Abatement Programs of the Environmental Protection Division (EPD).

This guidance document is intended for use by permittees, consultants, local governments, and EPD staff involved in the operation, permitting, and compliance oversight of solid waste handling facilities. The guidance provided within this document includes recommended procedures, evaluation criteria, and documentation requirements that may be used to facilitate the five-year permit review process; however, this document is not a statute, regulation, permit condition, or other legally binding requirement.

This guidance is intended to assist regulated entities and EPD staff in implementing the requirements of the Georgia Comprehensive Solid Waste Management Act (O.C.G.A. § 12-8-20, et. seq.), the Georgia Rules for Solid Waste Management (Subject 391-3-4), and other applicable authorities. This document may be revised in the future based on regulatory changes, program experience, stakeholder input, and/or new information.

This guidance is not intended to be comprehensive or all-inclusive. Site-specific conditions, compliance histories, operational practices, environmental monitoring results, and other factors may warrant additional review, information, or requirements beyond those described herein. The use of the methods and recommendations contained in this document is intended to promote consistency and facilitate EPD's review of five-year permit evaluations; however, EPD retains the authority to require additional information or take actions necessary to ensure compliance with applicable laws, regulations, permit conditions, and the protection of human health and the environment.

The use of trade names, company names, or commercial products in this document does not constitute endorsement or recommendation by EPD.

## **PURPOSE**

This document provides guidance to owners or operators of solid waste handling facilities on submitting applications for permit review in accordance with Section 391-3-4-.02(1) of the Rules for Solid Waste Management (Rules). This guidance draws from the experience gained by the Georgia Environmental Protection Division (EPD) and the regulated community during the first round of permit reviews and aims to attain additional consistency among all permits regardless of the solid waste handling permit type (disposal, processor, material recovery facility, thermal treatment, etc.), permit holder status (public or private entity), EPD review staff, and permittee's consultant.

As required by the Rules, permit reviews are intended to assure that operating solid waste handling facilities comply with the current requirements of the Georgia Comprehensive Solid Waste Management

Act (Act) and Rules. The latest guidance documents issued by EPD and United States Environmental Protection Agency (USEPA) can be used as an example of how permittee's may be able to satisfy the performance standards of the Rules. EPD solid waste technical guidance is available at <https://epd.georgia.gov/solid-waste-technical-guidance>. When new or updated EPD solid waste guidance is issued, facilities have a grace period of two years to incorporate new guidance into their five-year review unless the new guidance is being given to explain a new Rule requirement that must be met earlier. For example, if EPD issued new guidance on design and operational (D&O) plan formats on January 1, 2023, that guidance would not be expected to be incorporated into five-year review packages submitted before January 1, 2025.

## **PERMIT REVIEW SCHEDULE**

Permit reviews for all operating solid waste handling facilities will continue to be conducted by EPD for each facility holding a solid waste handling permit every five (5) years from the date that EPD issued the approval or conditional approval letter of the last Five-Year Permit Review.

For permits to remain in effect, applications for permit reviews must be filed at least six (6) months, but not more than eighteen (18) months, prior to the date of the scheduled permit review<sup>1</sup>. All facilities must place the written EPD approval of the Five-Year Permit review in their operating record and are responsible for noting when the next scheduled permit review<sup>1</sup> is due.

To conduct the permit review, EPD utilizes a two-part review process. The first part will evaluate for administrative completeness, and the second review will be for technical compliance with the Act and the Rules. The checklist provided in Attachment A will be utilized for determining completeness. If a complete Five-Year Permit Review package is not submitted before the scheduled permit review deadline<sup>1</sup>, the solid waste handling facility's right to operate ceases until a complete application is submitted. "Right to operate" means that the facility will not be authorized to receive additional waste for disposal or processing until a complete review package is submitted. The solid waste handling permit is not revoked or terminated when a facility is directed to cease receiving waste.

Applicants are strongly encouraged to complete the checklist in Attachment A for themselves and provide EPD with a copy to facilitate the review process and ensure their application is complete.

## **SUBMITTAL REQUIREMENTS**

The D&O Plans submitted for permit review must bear the stamp (or seal) and signature of an appropriate certified professional (e.g., engineer, geologist, groundwater scientist, and/or land surveyor). The Five-Year Permit Review D&O Plans are meant to stand on their own, incorporating all modifications approved as of the date of the submittal, and be forward-looking in nature. Sheets that do not have a bearing on the future operation or completion of closure activities at the facility do not need to be updated. For reviewed and updated sheets there should be no revisions listed in the revision boxes, no "bubbles," or drawings

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<sup>1</sup> Defined as five (5) years from the date that EPD issued the approval or conditional approval letter of the last Five-Year Permit Review.

with old EPD approval stamps. Revisions proposed for the Five-Year Permit Review drawings are to be detailed and justified in the cover letter submitted with the Five-Year Permit Review D&O Plan.

The application shall demonstrate, at a minimum, the requirements listed below:

- The facility's D&O plan meets current performance and design standards of the Rules based on the facility's current and historical operations and current performance of the containment, leachate, gas, and/or storm water management systems, as appropriate.
- The applicant shall confirm that all conditions of the Five-Year Permit review approval letter have been satisfied, if applicable.
- Construction Quality Assurance (CQA) practices are updated as appropriate and are current with ASTM or GRI standards.
- The erosion and sediment control measures are in accordance with best management practices described in the latest version of the Manual for Erosion and Sediment Control in Georgia ("Green Book").
- Groundwater monitoring network and the associated plan (design, installation, and sampling procedures) are in accordance with the Rules and in general accordance with the USEPA Region 4 latest guidance which can be found at <https://www.epa.gov/quality/quality-system-and-technical-procedures-sesd-field-branches>.
- Methane monitoring network and the associated plan (design, installation, and sampling procedures) are in accordance with the Rules and in general accordance with the *2015 Methane Monitoring at Solid Waste Disposal Facilities Guidance* including demonstrations regarding dynamic site conditions (i.e. hydraulic barriers still in existence or not, if applicable)
- Surface water monitoring network and the associated plan (design, installation, and sampling procedures) are in accordance with the Rules and in general accordance with the September 2021 *Monitoring of Surface Water and Underdrain Systems at Solid Waste Facilities Guidance*.
- Remaining Capacity and estimated Life of Site calculations are current.
- The D&O Plan includes a Prohibited Waste Exclusion Plan as required by the Rule. A template is attached, which is intended to ensure that all aspects of the rule are considered.
- Closure and post-closure care cost estimates must be based on current costs for hiring a third-party contractor. The closure cost estimate must reflect the largest area that could be open at any one time. For the permit holder's convenience, EPD has provided a cost estimate template to help ensure that all relevant costs, particularly those encountered by EPD during the closure of abandoned sites, are fully considered and included.

In addition to the demonstrations for the requirements noted above, the facility should provide updated information for:

- Current conditions of the facility. To make an accurate determination of the current conditions of the facility, a topographic survey of the site that is no greater than one (1) year old on the date of filing should be submitted.
- Current description of site operations, including status within sequence of fill, status within closure sequence, constructed disposal footprint, status of the phase-in schedule for environmental

monitoring locations, location and operating status of on-site processing or Permit-by-Rule facilities, etc.

- The most recent 5-year groundwater and methane well inspection required by the Water Well Standards Act (WWSA)
- Contact information of the owner and, if different from the owner, the operator (physical address, email and phone number)
- Facility address and coordinates (exact location of permitted site)

Permit review applications will not be considered complete if EPD determines that the facility has failed to submit a financial assurance mechanism updated for inflation in the last 12 months or has not submitted required reports (e.g., for environmental monitoring, tonnage, or remaining capacity).

All revisions and demonstrations are to be made as an update to the D&O Plan and its supporting documents as necessary. Plan updates need to address any unresolved operational deficiencies noted in EPD inspections, notices of violations, or enforcement orders.

If D&O Plans require revision, they may be submitted as either a minor modification or major modification, depending on the type of revision(s) required to address the requirements listed above. Determination of whether the permit review application will be a minor or major modification will be in accordance with Section 391-3-4-.02(3) of the Rules.

If there are no revisions and only consolidation of all previous minor modifications to have a complete, current and self-consistent D&O Plan, the consolidated plans can be filed as a minor modification. As indicated above, however, the Five-Year Permit Review D&O Plan must bear an updated stamp (or seal) and signature of an appropriate certified professional (e.g., engineer, geologist, groundwater scientist, and/or land surveyor) without revisions listed in the revision boxes, “bubbles,” or drawings with old EPD approval stamps.

The rationale for the permit review requiring no changes should be clearly stated on the minor modification request form and the cover letter. Submitting the minor modification, even if there are no changes needed, will indicate to EPD that the applicant and his/her consultant have reviewed the Five-Year Review D&O Plan as it is being submitted, and have deemed it to be consistent with the Rules and Regulations of the State of Georgia.

The documents submitted for permit review should include a cover letter which should:

- Clearly justify and summarize the following:
  - ✓ Type of permit review (i.e., major mod, minor mod).
  - ✓ The minor modifications incorporated into this submittal (approved since the last Five-Year Permit Review).
  - ✓ Supporting documents included in the submittal package.
- Clearly state whether the site accepts special waste such as coal combustion residuals (CCR), high moisture content waste (HMCW), non-hazardous liquid waste for solidification, petroleum

contaminated soils, etc. and has any other operational conditions to be considered during the review.

- Identify if there are other solid waste processing or recovered material operations at the facility.
- Identify and clarify environmental monitoring concerns such as if the site is in corrective action.
- Provide additional information not included in the application for solid waste handling permit form (e.g., zoning and solid waste management plan letters prepared in accordance with OCGA 12-8-21(g), if a major modification is required) or minor modification request form.

## FREQUENTLY ASKED QUESTIONS

### **1) Who needs to submit an application for permit review?**

All permitted solid waste handling facilities (new and operating) in Georgia shall submit an application for permit review. 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. The five-year permit review is not required for those facilities that have received a Closure Permit (or Certificate) and are in post-closure care or have provided notice of final closure.

### **2) Will a permit be issued every five years following the permit review?**

Permit review of an existing Solid Waste Handling Permit will not necessarily result in a revised permit. Based on the permit review, EPD will either issue written approval or will request the facility to amend their D&O Plans or submit additional supporting documents, if required. Upon approval, revised permits will be issued if necessary. If EPD is satisfied that the existing permit conditions meet current Division standards, a revised permit will not be issued.

### **3) Is permit review applicable to facilities within five years of closure?**

Yes, facilities approaching closure must submit an application for permit review unless notice of final closure is provided to EPD prior to the filing deadline. Plans for facilities nearing closure should demonstrate how the facility will be operated up to final receipt of waste, and how the facility will be closed and cared for in post-closure. Older plan sheets for early phases of facility operation are no longer needed. For example, a MSWL with no additional cells to be constructed will not have to update or resubmit its design sheets for liners and leachate collection systems.

### **4) If a facility seeks to expand or add a new solid waste handling process, can the permittee apply for a major modification before their permit review filing date? How will this affect their permit review schedule?**

If a facility chooses to expand or add a new solid waste handling process, they may apply for a major modification before their permit review filing date. This modification submittal will also serve as the facility's five-year review if the submittal completely updates the entire facility. Partial

updates, even if considered major modifications, do not serve to complete the permit review process.

**5) How will EPD interpret requirements in the D&O Plans and permit conditions previously approved but not meeting current Act and Rules?**

Components of solid waste disposal facilities (cells or other structures) already constructed should meet the requirements of the Permit, Act, and Rules that were applicable when those components were constructed. The principle of Rule 391-3-4-.07(3)(x) for buffers will be applied to previous construction.

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William Cook, Manager  
Solid Waste Management Program

Date

Updated guidance for 391-3-4 (Rules effective 1/23/2024)

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**Attachment A**

**FIVE-YEAR PERMIT REVIEW  
REGULATORY REVIEW CHECKLIST**

**FIVE-YEAR PERMIT REVIEW  
REGULATORY REVIEW CHECKLIST**

County: \_\_\_\_\_ Review Engineer: \_\_\_\_\_

Facility: \_\_\_\_\_ Date: \_\_\_\_\_

Permit #: \_\_\_\_\_

Requirements	Administrative Completeness		
	Yes	No	N/A
<b>A. Minor or Major Modification application form (as appropriate).</b>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<b>B. Compliance with financial assurance and reporting requirements (to be completed by EPD)*</b>			
1. Has a financial assurance mechanism (updated for inflation) been submitted and accepted in the last 12 months?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
2. Is the facility current with all solid waste reporting requirements as per the Rules for groundwater, methane, tonnage and remaining capacity?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
a. Required quarterly reports consistently submitted (methane, tonnage)?			
Methane monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Tonnage (no more than 6 months old)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
b. Required semi-annual reports consistently submitted?			
Groundwater monitoring	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
c. Required annual submittals no more than 15 months old?			
Remaining capacity report	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Waste disposal surcharge paid	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
d. If applicable, have all conditions listed in the previous 5-Year Permit approval been satisfied	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

**Note:**

\* If requirements listed in section B have not been submitted previously then they should be submitted at the time of permit review.

**C. Updated D&O Plans with necessary supporting documents \*\***

D&O Plan Requirements		SOLID WASTE DISPOSAL FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
1.	Permit boundary is clearly labeled, and a legal description is provided. Facility buffer is shown on D&O Plan. Plan lists previous variances or modifications allowing buffer disturbances.	391-3-4-.07(1)(b)	<ul style="list-style-type: none"> <li>Property Boundary and Waste disposal boundary legal description</li> <li>Review Google Earth Historical Maps</li> <li>Signed and dated stamp by Registered Land Surveyor</li> <li>200 ft buffer from property, except for older permits – 100 ft.</li> </ul>		
2.	Stream buffers are shown on plans. Site has maintained requirements of site limitations. Disturbances of wetlands or streams have been permitted under all applicable state and federal laws and rules.	O.C.G.A. § 12-7-6(a)(15) and (a)(16).	<ul style="list-style-type: none"> <li>See site limitations</li> <li>50 or 25 ft stream buffers</li> <li>Confirm JD is not older than 5-years, if applicable</li> </ul>		
3.	Site is constructed at approved grades and slopes.	391-3-4-.07(2) and 391-3-4-07(1)(i)6.	Per D&O Plan and Rules		
4.	Working face is sized appropriately for amount of solid waste disposed. Soil stockpiles and site equipment are adequate to meet cover requirements.	391-3-4-.07(1)(k) and (3)(q)	<ul style="list-style-type: none"> <li>Fire protection soil stockpile within 200 ft</li> <li>For C&amp;D – size may be larger, but sufficient soil to cover working face within 200 ft</li> </ul>		
5.	All surface runoff from disturbed areas is controlled by appropriate stormwater control measures and devices. Site is graded and drained to minimize runoff onto landfill surfaces.	391-3-4-.07(3)(i) and <a href="#">391-3-4-.07(1)(e)</a>	<ul style="list-style-type: none"> <li>Erosion and Sediment Control designed per latest version of Manual for Erosion and Sediment Control in Georgia (“Green Book”)</li> </ul>		

D&O Plan Requirements		SOLID WASTE DISPOSAL FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
6.	All erosion control measures provided on the plan conform to the best management practices described in the latest version of the Manual for Erosion and Sediment Control in Georgia (“Green Book”) and are protective of surface and ground water.	391-3-4-.07(1)(e) and (f)	<ul style="list-style-type: none"> <li>Use latest version of Manual for Erosion and Sediment Control in Georgia (“Green Book”)</li> </ul>		
7.	Is recirculation of leachate proposed?	391-3-4-.04(9)(a)2.	<ul style="list-style-type: none"> <li>Leachate recirculation is only allowed on areas lined with a composite liner (i.e. an FML over a <math>1 \times 10^{-7}</math> cm/sec clay liner) per Rule 391-3-4-.04(9)(a)2.</li> <li>Note on D&amp;O Plan grading plans that leachate recirculation cannot be not done on areas lined with alternative liners (i.e. an FML over a GCL over a <math>1 \times 10^{-5}</math> cm/sec soil liner). Specify on plan drawings and narrative, where leachate recirculation is allowed.</li> </ul>		
8.	D&O Plan and supporting documents demonstrate that site is receiving waste (including high moisture content wastes, CCR, industrial wastes, etc.) that is consistent with the facility design parameters.	391-3-4-.07(5) CCR and (6)(HMCW) – see No. <b>Error!</b> <b>Reference source not found.</b> for relevance to “unstable areas” See also Permit Signature Page narrative	<ul style="list-style-type: none"> <li>Address in cover letter and provide supporting documentation.</li> <li>If more than 5% HMCW – a HMCW Plan is required, see associated guidance.</li> </ul> <p>If CCR is accepted – CCR Management Plan is required Check for special wastes (industrial, liquid, contaminated soils) – See Prohibited Waste Exclusion Plan Requirements</p>		
9.	D&O Plan and supporting documents demonstrate that landfill is designed to ensure slope stability at <u>all phases of operation and closure.</u>	391-3-4-05(1)(h)1.c. and 2.a. and b.	<ul style="list-style-type: none"> <li>Address in cover letter and provide supporting documentation.</li> </ul>		

D&O Plan Requirements		SOLID WASTE DISPOSAL FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
10.	D&O Plan provides procedures for leachate control, management and treatment	391-3-4-.07(1)(d)1.a.	<ul style="list-style-type: none"> <li>Address in cover letter and provide supporting documentation.</li> </ul>		
11.	Site establishes prohibited waste procedures.	391-3-4-.04(6) 391-3-4-.07(3)(c) 391-3-4-.07(3)(m)	See Attachment B		
12.	Site has a construction quality assurance plan.	391-3-4-.07(2) and  EPA1600/R-93/182 , September 1993 Technical Guidance Document:  “QUALITY ASSURANCE AND QUALITY CONTROL FOR WASTE CONTAINMENT FACILITIES”			
13.	Site should have a construction quality assurance plan wherein the testing requirements are current with ASTM or GRI standards, where appropriate.		<p>ASTM standards are subject to change and several commonly used ASTM Standards have been withdrawn. Ensure ASTM standards referenced are up to date.</p> <ul style="list-style-type: none"> <li>Check Sieve Analysis, Nuclear Density, Laboratory Density</li> <li>Confirm GCL internal and geosynthetic interface friction testing requirements supported by stability calculations.</li> <li>Confirm transmissivity testing of geosynthetic drainage composites,</li> </ul>		

D&O Plan Requirements		SOLID WASTE DISPOSAL FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
			specifying duration (100-hr), load (of waste on material) and gradient (slope or grade of base of cell). <ul style="list-style-type: none"> <li>Confirm additional CQA Section if synthetic turf is proposed for closure of the facility</li> </ul>		
14.	Plan specifies the daily, monthly or intermediate cover type. Plan lists all approved alternate cover types specific to the site and procedures for their application and removal.	391-3-4-.07(3)(e) and (3)(g)	Confirm ADCs approved: <ul style="list-style-type: none"> <li>ADC's consisting of contaminated soils, ash, alum waste, or other type of waste demonstrated to be non-hazardous (per PWEF, Attachment C) and to meet daily cover requirements must only be used on internal slopes.</li> <li>Confirm that ADC's are not left in place over 24 hours – i.e. weekends and holidays</li> </ul>		
15.	Volume Section has total permitted and remaining capacity and life of facility.	391-3-4-02(3)(a) and (b) <ul style="list-style-type: none"> <li>391-3-4-.17(3)</li> </ul>	<ul style="list-style-type: none"> <li>Total permitted capacity includes waste, daily, and intermediate cover. The sum of these volumes may not increase without a request for a Major Modification.</li> <li>Volume of soil required for final cover will vary depending on permitted final cover configuration. Synthetic Turf Covers have less soil requirement.</li> </ul>		

D&O Plan Requirements		SOLID WASTE DISPOSAL FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
			<ul style="list-style-type: none"> <li>Note whether soil borrow is available on-site or needed from off-site.</li> </ul>		
16.	Access to site is controlled to prevent unauthorized access, illegal dumping, and scavenging.	391-3-4-.07(1)(h)	D&O Plan: <ul style="list-style-type: none"> <li>Gate or barrier at potential access points to vehicles and public.</li> <li>Fence or barrier around site.</li> </ul>		
17.	Facility is designed to prevent and minimize the potential for fire or explosion.	391-3-4-.07(1)(k)	Size of Stockpile sufficient to cover working face in case of fire.		
18.	Plan requires uniform compacted layer of final cover not less than 2 feet in depth and vegetative cover be placed over final lift no later than one month following final placement of solid waste within that lift.	391-3-4-.07(1)(i) 391-3-4-.07(1)(f) and 391-3-4.11(l):	Per rules 391-4-3.07(1)(i) and 391-4-3.11(l): <ul style="list-style-type: none"> <li>For lined facilities, final cover includes a geomembrane. Include alternative final covers permitted.</li> <li>Confirm no change in capacity of landfill, i.e. bottom elevation of permitted final cover remains unchanged, unless Major Mod is requested</li> </ul>		
19.	D&O Plan includes methane, groundwater and surface water monitoring plans, that meet current EPD and Federal guidance.	391-3-4-.07(1)(l) (GW and SW Monitoring Plans required) 391-3-4-.07(3)(h) (Explosive Gas) 391-3-4-.07(3)(j) (Surface Water) 391-3-4-.14 (GW)	Methane Monitoring Plan: <ul style="list-style-type: none"> <li>Cite 2015 Methane Monitoring at Solid Waste Disposal Facilities Guidance if relied upon.</li> <li>Any equipment used must follow manufacturer specifications</li> <li>Appropriate spacing (300' to 500') between wells depending on facility type and proximity to receptors.</li> <li>Methane migration barrier demonstration every 5 years with the barrier extent and rationale shown on the plan.</li> </ul>		

D&O Plan Requirements		SOLID WASTE DISPOSAL FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
			<ul style="list-style-type: none"> <li>• Provide most recent WWSA 5-year well inspection including the inspection sheets</li> <li>• Include a table of all methane monitoring wells and barhole punch locations and all available construction data.</li> <li>• Include a table of all structures monitored for methane.</li> <li>• Include a phasing table, if applicable.</li> <li>• Show existing and proposed wells with a unique symbol for each.</li> <li>• Include a certification, seal and signature of a PG/PE* registered in Georgia who is a qualified groundwater scientist.</li> </ul> <p>Groundwater Monitoring Plan:</p> <ul style="list-style-type: none"> <li>• While the 1991 Manual for Groundwater Monitoring still contains relevant information, please use and cite EPA Region IV LSASD guidance and procedures; most notably: Design and Installation of Monitoring Wells Guidance if relied upon.</li> <li>• Include a table of groundwater monitoring wells and all available construction data.</li> <li>• Show existing and proposed wells with a unique symbol for each.</li> <li>• Include a phasing table, if applicable.</li> <li>• Include a table for sampling parameters</li> <li>• Provide most recent WWSA 5-year well inspection</li> </ul>		

D&O Plan Requirements		SOLID WASTE DISPOSAL FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
			<ul style="list-style-type: none"> <li>State that calibration protocols will be completed in accordance with manufacturer specifications and the calibration forms are included in the groundwater monitoring report.</li> <li>Include a certification, seal and signature of a PG/PE qualified groundwater scientist.</li> </ul> <p>Surface Water Monitoring Plan</p> <ul style="list-style-type: none"> <li>Cite Monitoring of Surface Water and Underdrain Systems at Solid Waste Facilities Guidance if relied upon.</li> <li>Any equipment used must follow manufacturer specifications</li> <li>Include a table of surface water points and what they monitor.</li> <li>Include a sampling parameter table.</li> <li>Include a certification, seal and signature of a PG/PE qualified groundwater scientist.</li> </ul>		

D&O Plan Requirements		SOLID WASTE DISPOSAL FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
20.	D&O Plan includes closure plan and post-closure care plan. Closure and post-closure care cost estimates are updated and based on current year's costs of hiring a third party. The closure cost estimate is based on the largest area to be open at one time, when the manner and extent of its operation is most expensive to close.	391-3-4-.11 (Closure) 391-3-4-.12 (Post-Closure Care) 391-3-4-.13 (Financial Responsibility)	<p>Closure and Post Closure Costs:</p> <ul style="list-style-type: none"> <li>• Ensure these are third-party costs that are reasonable and have been properly inflated from previously approved costs. [<i>Third-Party means cost that EPD would incur if the site was abandoned</i>]</li> <li>• Ensure current costs to close the facility cover <u>current or larger open area</u>. Is there a specified closure sequence? Is it being followed?</li> <li>• Ensure that post-closure cost includes cost associated with testing, repairing and replacing non earthen final covers (EGMs and artificial turf)</li> </ul> <p>It is suggested that Attachment C be used as a guide.</p> <p>Post Closure Care</p> <ul style="list-style-type: none"> <li>• Ensure that procedures to test, maintain, and repair non-earthen covers is provided.</li> <li>• Ensure that procedures to test, maintain, and repair MSE walls is provided</li> </ul>		

**Note:**

\* If requirements listed in section B of the Five-Year Permit Review Regulatory Review Checklist have not been submitted previously then they should be submitted at the time of permit review.

\*\* All D&O Plan requirements listed in section C of the Five-Year Permit Review Regulatory Review Checklist must be satisfied and included in the permit review application package unless they are not applicable or previously approved plans meet current Act and Rules.

D&O Plan Requirements		PROCESSING FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
1.	D&O plan establishes all applicable conditions as per Rules and the permit specific to the facility.	Rule Sections applicable to Processing Facilities:			
2.	Permit boundary is clearly labeled, and a legal description is provided. Facility buffers are shown on the Plan.	391-3-4-.01 391-3-4-.02 391-3-4-.03 391-3-4-.04			
3.	Site has maintained requirements of site limitations. Disturbance of wetlands has been permitted under all applicable state and federal laws and rules.	391-3-4-.05 391-3-4-.09 391-3-4-.11 391-3-4-.13	See site limitations 50 or 25 ft stream buffers		
4.	Plan demonstrates the volumes or quantities of waste being received, processed and removed for disposal. Plan or supporting documents include sources, types of solid waste being processed, and information concerning special environmental pollution or handling problems that may be created by solid waste.	391-3-4-.14 (Class 4 and 5 Compost) 391-3-4-.15 (Bio-medical Waste) 391-3-4-.16 (Compost/AD) 391-3-4-.20			
5.	If applicable as per Rules, the plan demonstrates that facility provides a minimum storage capacity of at least three (3) times the daily capacity of the processing equipment.	391-3-4-.07(1)(b) 391-3-4-.16(6)(b) (Compost/AD)			
6.	Plan demonstrates that storage, loading and unloading of waste prior to and after processing is				

D&O Plan Requirements		PROCESSING FACILITIES - TECHNICAL REVIEW			
		Relevant Act Section / Rule	Technical Guidance	Meets Standard	Deficient
	performed as per Rules and the permit.				
7.	Site establishes prohibited waste procedures.		Per Attachment B		
8.	All erosion control measures provided on the plan conform to the best management practices described in the latest version of the Manual for Erosion and Sediment Control in Georgia (“Green Book”) and are protective of surface and ground water.				
9.	Plan establishes that facility is designed to meet all applicable air quality standards.				
10.	Facility design provides procedures in response to fires, spills, explosions and equipment failure. Does the processing area have secondary containment.				
11.	Access to site is controlled to prevent unauthorized access and illegal dumping.				
12.	Plan establishes that no waste may be burned or disposed of at the facility as part of the operation.				
13.	A closure plan is included. Closure cost estimates are updated and based on current year’s costs of hiring a third party. Costs need to include removing material stored on entire facility (i.e. storage and staging areas, as well as in parking lot).				

**Note:**

**\* If requirements listed in section B of the Five-Year Permit Review Regulatory Review Checklist have not been submitted previously then they should be submitted at the time of permit review.**

**\*\* All D&O Plan requirements listed in section C of the Five-Year Permit Review Regulatory Review Checklist should be satisfied and included in the permit review application package unless not applicable or previously approved plans meet current Act and Rules.**

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**Attachment B**  
**PROHIBITED WASTE EXCLUSION PLAN**

## PROHIBITED WASTE EXCLUSION PLAN

Prohibited Waste Exclusion Plan Requirements		Technical Review		
		Meets Standard	Deficient	Comment
1.	References Rule 391-3-4-.07-(3)-(c) & (m). included in operating record			
2.	Excludes prohibited waste from being disposed of at the facility, including: <ul style="list-style-type: none"> <li>✓ liquids,</li> <li>✓ lead acid batteries,</li> <li>✓ radioactive waste,</li> <li>✓ polychlorinated biphenyl (PCB) waste as defined in 40 CFR, Part 761<sup>1</sup>,</li> <li>✓ regulated hazardous waste.</li> <li>✓ scrap tires</li> </ul>			
3.	Requires the Operator to identify and exclude non-household hazardous waste.			
4.	Includes frequency of personnel training to: <ul style="list-style-type: none"> <li>✓ to recognize prohibited wastes.</li> <li>✓ conduct random inspections.</li> <li>✓ keep records of such inspections; and</li> <li>✓ notify EPD if prohibited wastes are discovered at the facility.</li> </ul>			
5.	Personnel training included in the operating record.			
6.	Frequency of random inspections –			
7.	Personnel trained to recognize prohibited wastes at the tipping area and: <ul style="list-style-type: none"> <li>✓ observe each load.</li> <li>✓ record observations.</li> <li>✓ reject liquid containers larger than 5 gallons that are not perforated or drained.</li> <li>✓ reject pesticides, herbicides, lead acid batteries, biomedical waste, corrosives, and flammables.</li> <li>✓ record and report the discovery of prohibited waste and the responsible hauler.</li> </ul>			
8.	Requirement to report the haulers attempting to dispose of prohibited waste to EPD.			
9.	Requirement to notify EPD when prohibited waste is discovered at the facility.			

<sup>1</sup> At concentrations greater than 50 ppm

Prohibited Waste Exclusion Plan Requirements		Technical Review		
		Meets Standard	Deficient	Comment
10.	<p>Section detailing the restrictions associated with handling Liquid Waste to include:</p> <ul style="list-style-type: none"> <li>✓ Definition: "Liquid Waste" means a waste material that contains "free liquids" as defined by EPA Method 9095 (Paint Filter Liquids Test) (EPA Pub. No. SW-846).</li> <li>✓ Bulk or noncontainerized liquid waste will not be accepted.</li> <li>✓ Containers holding liquid waste may not be accepted, unless: <ul style="list-style-type: none"> <li>○ The container is a small container similar to that normally found in household waste.</li> <li>○ The container is designed to hold liquids for use other than storage; or</li> <li>○ The waste is household waste.</li> </ul> </li> </ul> <p>Liquid waste demonstrated to be non-hazardous and admixed with a blade-able material to render it non-liquid, is acceptable for disposal at the landfill with the concurrence of the landfill operator. Demonstration that a liquid waste is non-hazardous is according to See Waste Acceptance Protocols in Line Item <b>Error! Reference source not found.</b> below. Waste Acceptance Protocols apply to all liquid and HMCW wastes solidified on site.</p>			
11.	Section detailing the restrictions associated with handling Lead Acid batteries. Batteries, whether from an automobile, a truck, a tractor, or other equipment are categorically excluded from disposal at Georgia Landfills.			
12.	Section detailing the restrictions associated with handling Biomedical Wastes. Pathological waste, biological waste, cultures, infectious wastes, contaminated animal wastes, body parts, chemotherapy waste, discarded medical equipment and parts, and any other contaminated medical device is categorically prohibited from disposal.			
13.	Section detailing the restrictions associated with handling Radioactive Waste defined in Rule 391-3-9-.03(k). Radioactive Waste is categorically prohibited from disposal.			
14.	<p>Section detailing the restrictions associated with handling Hazardous Waste as follows:</p> <ul style="list-style-type: none"> <li>✓ Definition: A solid waste is a hazardous waste if it is specifically listed as a known hazardous waste or meets the characteristics of a hazardous waste. A waste is hazardous if it is: <ul style="list-style-type: none"> <li>✓ It is specifically listed on one of four lists (the F, K, P, and U lists) found in Title 40 of the Code of Federal Regulations, Part 261.</li> <li>✓ Ignitable [has a flashpoint below 140 degrees F, causes fire by friction under normal conditions, or is an oxidizer.]</li> <li>✓ Corrosive [pH is 2 or less, or 12.5 or greater]</li> <li>✓ Reactive [unstable under normal conditions, reacts violently with water, forms an explosive mixture with water, contains any quantity of cyanide, contains sulfur which could be released to the atmosphere, or can easily be detonated or exploded]</li> </ul> </li> </ul>			

Prohibited Waste Exclusion Plan Requirements		Technical Review		
		Meets Standard	Deficient	Comment
	<ul style="list-style-type: none"> <li>✓ Toxic [As defined by the TCLP test procedure]</li> </ul>			
15.	<p>Section detailing Waste Verification Procedure:  Minimum requirement to verify that the received waste is not hazardous:</p> <ul style="list-style-type: none"> <li>✓ Industrial solid and liquid waste streams received at the facility should be manifested with a generator waste profile.</li> <li>✓ Each waste container received at the facility should be evaluated to determine whether the waste conforms to its waste profile.</li> <li>✓ A hazardous waste screening procedure that includes, at a minimum, pH and flash point testing for all liquid waste received should be specified in the D&amp;O Plan.</li> <li>✓ Quarterly, the facility should conduct random toxicity characteristic testing of industrial solid and liquid stream received prior to placing in the landfill or processing and solidified.</li> <li>✓ Quarterly, the facility should conduct random toxicity characteristic testing of mixed but not solidified waste.</li> </ul>			

**Attachment C**

**CLOSURE AND POST CLOSURE  
COST ESTIMATE TEMPLATE**

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### 3rd Party Cost Estimate Form for Post-Closure Care of a Solid Waste Disposal Facility

Facility Type:       MSWLF       CD       Industrial  
 Facility Name:  
 Permit #:  
 Address of Facility:  
 Owner/Operator:

	Task	Unit	Unit Cost	Quantity	Total Cost
<b>1</b>	<b>Administration and Project Management</b>				
	State Project Manager (Administration, RFPs, Bidding, Contract Negotiations, Contract Management)	LS			\$0.00
	Post-Closure Care Manager (Field Work Third-Party)	LS			\$0.00
<b>2</b>	<b>Groundwater Monitoring</b>				\$0.00
	Groundwater Detection Sampling, Analysis and Reporting	per well			\$0.00
	Groundwater Assessment Monitoring	per well			\$0.00
	Groundwater Well Replacement Fund	per well			\$0.00
	5-Yr Groundwater Well Integrity Testing & Re-Certification	per well			\$0.00
	Groundwater Well Abandonment	per well			\$0.00
	Corrective Action Costs (if applicable)				\$0.00
	Other				\$0.00
	Other				\$0.00
<b>3</b>	<b>Surface Water Monitoring</b>				
	Surface Water Sampling & Analysis	per sampling point			
	Other				
	Other				
<b>4</b>	<b>Methane Gas Monitoring</b>				
	Quarterly Methane Monitoring	per event			\$0.00
	GCCS O&M				\$0.00
	Maintenance/Replacement Active Gas Collection System Components (1% annually)				\$0.00
	GCCS Shutdown (decommission once in 30-yr. period)				\$0.00
	Maintenance of Gas Venting System				\$0.00
	5-Yr Methane Well Integrity Testing & Re-Certification	per well			
	Other				
	Other				\$0.00
<b>5</b>	<b>Leachate Collection/Monitoring</b>				
	Maintenance of Collection System				
	Disposal Charges	gallons			
	Electricity				
	Sump/Pump Station Inspection				
	Pump Replacement				
	Sampling & Analysis				
	Other				
	Other				

**3rd Party Cost Estimate Form for Post-Closure Care of a Solid Waste Disposal Facility**

Facility Type:       MSWLF       CD       Industrial  
 Facility Name:  
 Permit #:  
 Address of Facility:  
 Owner/Operator:

	<b>Task</b>	<b>Unit</b>	<b>Unit Cost</b>	<b>Quantity</b>	<b>Total Cost</b>
<b>6</b>	<b>Repair &amp; Site Maintenance Costs</b>				
	Mowing (2x per year min)				
	Grassing and Soil Amendments (3% of total area per yr. min)				
	Final Cover repair (3% of total area per yr. min)				
	Soil Cover Maintenance and Planting				
	Access Road Maintenance (1% of total area per yr. min.)				
	Fence/Gate Repairs	LS			
	Diversion Berm, Terrace Channel, Drainage Layer Outlets and Downdrains Maintenance (10% of total area per yr. min)	FT			
	Stormwater Structures (risers, outlets, inlets) Maintenance/Repair				
	Sedimentation Pond Cleanout (once every 5 yr. min)				
	For Artificial Turf Closures:				
	Ballast replacement				
	Artificial Turf Testing during the PCC period				
	30- year Turf Replacement Fund (alternatively, provide a fund to replace the artificial turf with a conventional soil cap at the end of the PCC period).				
	For EGMs:				
	EGM Testing during the PCC period				
	Fund to replace the EGM with a conventional soil cap at the end of the PCC period				
	For MSE Walls:				
	MSE wall monitoring and maintenance.				
	Contingency to cover remediation and clean up in the event of a critical MSE wall failure.				
	Other				
	Other				
<b>7</b>	<b>Engineering Inspections</b>				
	Quarterly Inspections				
	Report Preparation/Submission				
	Other				
	Other				



### 3rd Party Cost Estimate Form for Post-Closure Care of a Solid Waste Disposal Facility

Facility Type:       MSWLF       CD       Industrial  
 Facility Name:  
 Permit #:  
 Address of Facility:  
 Owner/Operator:

	Task	Unit	Unit Cost	Quantity	Total Cost
<b>8</b>	<b>Miscellaneous</b>				
	Other				
	Other				
	Other				
	Other				
<b>9</b>	<b>Contingency</b>				
	5% of total (minimum)		5%	\$0.00	\$0.00
	<b>Total Yearly Cost</b>				<b>\$0.00</b>
	<b>Total 30-Year Cost</b>				

*This form provides a basis for cost estimating post-closure care costs of a closed landfill. This form is not inclusive of all costs that may be associated with the landfill post closure care. The cost estimate must include all items needed to comply with a facility's SW Handling permit. Items listed that are not part of the permit, can be noted as NA (not applicable). Use the spaces noted as "Other" for other items as needed or attach additional sheet if necessary. Additionally:*

- All costs include labor, materials, and equipment.*
- During the post-closure care period of the facility, the owner and/or operator must annually adjust the post closure care cost estimate for inflation.*
- The post-closure care cost needs to provide base year the costs are based on.*

## Closure Estimate for Materials Recovery and Anaerobic Digester Facilities

Facility Type (MRF or AD):	
Facility name:	
Permit #	
Address:	
Owner/Operator:	
Acreeage used for closure cost estimate:	

	Task	Unit	Unit cost	Quantity	Total Cost
<b>1</b>	<b>Design of Final Closure Plans</b>				
	Engineering Cost	LS			\$ -
	Plans	LS			\$ -
	Other				\$ -
	Other				\$ -
<b>2</b>	<b>Mobilization, Demobilization &amp; Insurance</b>				
	Total Cost	LS			\$ -
	Other				\$ -
	Other				\$ -
<b>3</b>	<b>Erosion Control</b>				
	Silt Fence	LF			\$ -
	Erosion Matting/ Blanket	LF			\$ -
	Hay Bale Sediment Barrier	EA			\$ -
	Hay Mulch Cover	EA			\$ -
	Check Dams	EA			\$ -
	Other				\$ -
	Other				\$ -
<b>4</b>	<b>Waste Disposal</b>				
	Disposal of solid waste stored at facility (feedstocks)				\$ -
	Disposal of digestate-AD only				\$ -
	Disposal of hazardous waste-AD only				\$ -
	Disposal of pH control chemicals and laboratory chemicals-AD only	GALLONS			\$ -
	Disposal of wastewater from equipment and tank cleaning	GALLONS			\$ -
	Other				\$ -
	Other				\$ -
<b>5</b>	<b>Equipment and tank decommissioning and cleaning</b>				
					\$ -
	Other				\$ -
	Other				\$ -

<b>6</b>	<b>Stabilization, Run-off Control</b>				
	Surface grading for drainage	AC			\$ -
	Seed & Mulch (Include Lime, Fertilizer, Seed & Hay Mulch)	AC			\$ -
	Surface Water Diversion Swales				\$ -
	Stone Rip-Rap	CY			\$ -
	Catch Basins, Manholes & Drop Inlets	EA			\$ -
	Detention Pond and Associated Outlet Device	EA			\$ -
	Clean out sedimentation ponds	EA			\$ -
	Other				\$ -
	Other				\$ -
<b>7</b>	<b>Roadway</b>				
	Access Roadway	LF			\$ -
	Drainage Ditches				\$ -
	Culvert Inlet & Outlet Headwalls				\$ -
	Dust Control				\$ -
	New/Replaced Pavement	SY			\$ -
	Other				\$ -
	Other				\$ -
<b>8</b>	<b>Miscellaneous</b>				
	Signs	LS			\$ -
	Perimeter Fence	LF			\$ -
	Entry Gate	EA			\$ -
	Miscellaneous Work and Cleanup				\$ -
	Decommission natural gas connections to pipeline-AD only				\$ -
	Septic Tank Cleanout and septage disposal	GALLONS			\$ -
	Other				\$ -
	Other				\$ -
<b>9</b>	<b>Surveying</b>				
	Baseline, Bench Marks, and Survey Control	LS			\$ -
	Other				\$ -
	Other				\$ -
<b>10</b>	<b>Engineering</b>				
	Project Manager				\$ -
	Record Drawings/ As-Built				\$ -
	Professional Engineering Certification				\$ -
	Other				\$ -
	Other				\$ -
<b>11</b>	<b>Contingency-5% minimum)</b>				
			5%		\$ -
<b>Total Cost</b>					\$ -
<b>Total Cost/Acre</b>					#DIV/0!