

SWM-SWP-P143- Processing Post-closure Plan Certifications and Long-term Custodial Care Documents – Draft MM/DD/YY
Standard Operating Procedure (SOP) - Processing Post-closure Plan Certifications and Long-term Custodial Care Documents

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EFFECTIVE DATE: MM/DD/YY

SIGNATURES:

Lisa A. Hughey, CHMM, Director, Division of Solid Waste Management
Approver

Craig Almanza, Deputy Director of the Central Office, Division of Solid Waste Management
Reviewer

Rob Ashe, Deputy Director of the Field Offices, Division of Solid Waste Management
Reviewer

Brian Wolf, Manager of Solid Waste Program, Division of Solid Waste Management
Reviewer

Richard A. Whitson, Environmental Fellow, Division of Solid Waste Management
Drafter / Preparer

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SECTION 1: INTRODUCTION

This Standard Operating Procedure (SOP) provides procedures for Tennessee Department of Environment and Conservation (TDEC), Division of Solid Waste Management (DSWM), employees to assist in the processing, reviewing, and evaluating the certification verifying that post-closure has been completed in accordance with the post-closure care plan and the adequacy of proposed Long-term Custodial Care Documents. Statutory and regulatory authorities are provided in Section 2. This SOP is only intended to describe routine conditions normally encountered with the processing and evaluation of Post-closure Certifications and Long-term Custodial Care Documents. Additional processes and/or irregular conditions that could be involved will be considered independently of this SOP. In such cases, the staff will consult with their manager and as necessary, upper management.

SECTION 2: STATUTORY AND RULE AUTHORITY

Tennessee Statutory Authority

T.C.A. § 68-211-101 et seq., the Tennessee Solid Waste Disposal Act.

Tennessee Rule Authorities

The Rule citations listed below and in this Policy were effective on the Effective Date of this policy (SOP) and could be amended on a later date and those Rules, as amended, would apply. Additionally, this is not a comprehensive list of all the regulations that could apply to post-closure of a disposal facility.

Rule 0400-11-01-.02(3)(a)8 [Rule page 32*] states:

All reports required by permits and other information requested by the Commissioner shall be signed by a person described in part 7. of this subparagraph, or by a duly authorized representative of that person. A person is a duly authorized representative only if:

- (i) The authorization is made in writing by a person described in part 7. of this subparagraph;*
- (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, superintendent, or person of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position); and*
- (iii) The written authorization is submitted to the Commissioner.*

Rule 0400-11-01-.02(3)(a)10 [Rule page 33] states:

Any person signing a document under parts 7. or 8. of this subparagraph shall make the following certification:

"I certify that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gathered and evaluated the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information

* The rule citations refer to the Rules of the Tennessee Department of Environment and Conservation Division of Solid Waste Management (March 2021 (Revised)) as published by the Tennessee Secretary of State.

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submitted is, to the best of my knowledge and belief, true, accurate, and complete. As specified in T.C.A. § 39-16-702(a)(4), this declaration is made under penalty of perjury.”

Rule 0400-11-01-.03(2)(a) [Rule page 49] states:

General Requirements - Operators of facilities must submit a closure/post-closure care plan to the Department, obtain approval of the plan, and amend the plan when necessary, as set forth in this paragraph.

Rule 0400-11-01-.03(2)(b)1 [Rule page 49] states:

The closure/post-closure plan must identify the steps necessary to completely or partially close the facility at any point during its intended operating life and to completely close the facility at the end of its intended operating life, and must identify the activities which will be carried on after closure and the frequency of these activities. For facilities being developed or to be developed according to a phased development plan, the closure/post-closure care plan must address each parcel separately as well as the whole.

Rule 0400-11-01-.03(2)(b)2 [Rule pages 49 and 50] states:

The closure/post-closure plan must include, at a minimum:

- (i) A description of how and when the facility will be partially closed, if applicable, and finally closed. If minimum closure areas are used, they must be delineated in the engineering plans. The description must identify how the applicable closure standards of paragraph (8) of Rule 0400-11-01-.04 will be met. It must also include an estimate of the expected year of closure and a schedule for completing the steps of final closure;*
- (ii) A description of the planned ground and surface water monitoring and other monitoring and maintenance activities and frequencies at which they will be performed. The description must identify how the applicable post-closure care standards of paragraph (8) of Rule 0400-11-01-.04 and the applicable Ground Water Protection/Monitoring Standards of paragraph (7) of Rule 0400-11-01-.04 will be met; and*
- (iii) The name, address, and phone number of the person or office to contact about the facility during the post-closure care period. This person or office must keep an updated closure/post-closure plan during the post-closure care period.*
- (iv) An itemized estimate in current dollars of the cost based on hiring a third party to perform the closure and post-closure care activities.*
- (v) A description of the planned uses of the property during the post-closure care period.*
- (vi) For Class I and Class II facilities, a description of recommended inspection, monitoring, maintenance activities for long-term custodial care, during the 50-year period beginning upon certification of completion of post-closure to ensure the continued protection of human health and the environment. Facilities which utilize synthetic components in the final cover system must include an analysis of the life cycle of such components.*

Rule 0400-11-01-.03(2)(c) [Rule page 50] states:

Resubmittal of Plan - All Class I and Class II facilities must submit a new closure/post-closure care plan every 10 years from the date of the original permit or the date of approval of the most recent

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permit modification for an expansion. The resubmittal of a plan will be processed as a minor modification to the facility and must comply with subparagraph (b) of this paragraph. At a minimum:

- 1. Itemized closure/post-closure cost estimates must be adjusted by recalculating the maximum closure/post-closure amounts in current dollars and taking into account any design changes, new monitoring points, and changes in materials.*
- 2. The phased development plan must be updated and reconciled with the closure/post-closure cost estimate.*
- 3. Minimum closure areas must be revised or added to reflect planned partial closure of the facility.*
- 4. The new plan must include a separate itemized cost estimate for long-term custodial care activities. This cost estimate is not to be included in the financial assurance amount for the facility.*

Rule 0400-11-01-.03(2)(d) [Rule pages 50 and 51] states:

Amendment of Plan - The approved closure/post-closure care plan may be amended at any time during the active life of the facility or during the post-closure care period as set forth in this subparagraph.

- 1. The operator may request to amend the plan to alter the closure requirements, to alter the post-closure care requirements, or to extend or reduce the post-closure care period based on cause. The request must include evidence demonstrating to the satisfaction of the Commissioner that:
 - (i) The nature of the facility makes the closure or post-closure care requirement(s) unnecessary; or*
 - (ii) The nature of the facility supports reduction of the post-closure care period; or*
 - (iii) The requested extension in the post-closure care period or alteration of closure or post-closure care requirements is necessary to prevent threats to human health and the environment.**
- 2. Such plan amendments shall be processed as modifications to the permit. However, the Commissioner may decide to modify the plan if he deems it necessary to prevent threats to human health and the environment. He may extend or reduce the post-closure care period based on cause or alter the closure or post-closure care requirements based on cause. However, no such modifications shall be initiated until the operator has been notified of such proposed action and provided the opportunity to be heard on the matter.*
- 3. The cost estimate of the approved closure/post closure care plan must be adjusted annually for inflation. Such inflation adjustment shall not be considered an amendment of the plan.*

Rule 0400-11-01-.03(3)(i) [Rule page 64] states:

Maintenance/Release of Financial Assurance - The financial assurance must be maintained until the Commissioner releases it as specified in this subparagraph, or until the Commissioner orders forfeiture of the financial assurance as provided in subparagraph (j) of this paragraph.

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1. *If the closure/post-closure care plan is amended and the amendments result in a reduction in the amount of financial assurance required under that currently filed with the Commissioner, the Commissioner shall, upon the operator's request, cause to be released to the operator (or issuing institution, if appropriate) the excess financial assurance.*
2. *In his notice to the operator that closure of the facility or facility parcel is approved (refer to part (8)(c)9. of Rule 0400-11-01-.04), the Commissioner will also notify the operator that he is no longer required by this paragraph to maintain financial assurance for such closure. At such time the Commissioner shall cause to be released to the operator (or issuing institution, if appropriate) the financial assurance filed to provide for such closure.*
3. *During the period of post-closure care, the Commissioner may reduce the amount of financial assurance required for the facility if the operator demonstrates to the Commissioner that the amount currently filed exceeds the remaining cost of post-closure care. Upon such occurrence, the Commissioner shall cause to be released to the operator the excess financial assurance on file.*
4. *When an operator has completed, to the satisfaction of the Commissioner, all post-closure care requirements in accordance with the approved closure/post-closure care plan the Commissioner will, at the request of the operator, notify him in writing that he is no longer required by this paragraph to maintain financial assurance for such post-closure care. At such time the Commissioner shall also cause to be released to the operator (or issuing institution, if appropriate) the financial assurance filed to provide for such post-closure care.*
5. *Financial assurance will normally be released in the form(s) it was submitted. However, where such release involves an amount equal to only a portion of the funds assured by a financial assurance mechanism (see subparagraphs (e) and (f) of this paragraph), the Commissioner shall, as appropriate considering the type of mechanism involved, either cause to be released to the operator cash or collateral equal to that amount or allow the owner or operator to substitute for the mechanism(s) on file a new mechanism(s) reduced by that amount.*

Rule 0400-11-01-.04(1)(c) [Rule page 66] states:

Project Supervision - A registered engineer must plan, design, and inspect the construction of any Class I, II, III, or IV disposal facility; also, a registered engineer must assist in the start-up of and outline correct operating procedures for any new or altered facility. Any registered engineer herein required shall be governed by the terms of T.C.A. Title 62, Chapter 2.

Rule 0400-11-01-.04(7)(a)1 [Rule page 82] states:

General Ground Water Protection Standard for solid waste facilities

- (i) *This subpart will establish a ground water protection standard for parameters in the facilities' permits, in Appendix I, and in Appendix II. The ground water protection standard shall be:*
 - (l) *For constituents for which a maximum contaminant level (MCL) is listed in Appendix III of this rule, the MCL for that constituent; or*

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- (II) For constituents for which MCLs have not been promulgated, the background concentration for the constituent established from wells installed in accordance with part 3. of this subparagraph; or
 - (III) For constituents for which the background level is higher than the MCL identified under item (I) of this subpart or health based levels identified under subpart (ii) of this part, the background concentration.
- (ii) The Commissioner may establish an alternative ground water protection standard for constituents for which MCLs have not been established. These ground water protection standards shall be appropriate health based levels that satisfy the following criteria;
- (I) The level is derived in a manner consistent with Environmental Protection Agency guidelines for assessing the health risks of environmental pollutants (51 CFR 33992, 34006, 34014, 34028, Sept. 24, 1986);
 - (II) The level is based on scientifically valid studies conducted in accordance with the Toxic Substances Control Act Good Laboratory Practice Standards (40 CFR part 792, August 17, 1989) or equivalent
 - (III) For carcinogens, the level represents a concentration associated with an excess lifetime cancer risk level (due to continuous lifetime exposure) within the 1.0×10^{-4} to 1.0×10^{-6} range; and
 - (IV) For systemic toxicants, the level represents a concentration to which the human population (including sensitive subgroups) could be exposed to on a daily basis that is likely to be without appreciable risk of deleterious effects during a lifetime. For purposes of this subpart, systemic toxicants include toxic chemicals that cause effects other than cancer or mutation.
- (iii) In establishing ground water protection standards under subpart (ii) of this part, the Commissioner may consider the following:
- (I) Multiple contaminants in the ground water;
 - (II) Exposure threats to sensitive environmental receptors; and
 - (III) Other site-specific exposure or potential exposure to ground water.

Rule 0400-11-01-.04(8)(b) [Rule page 98] states:

Adherence to Plan - The operator must initiate and complete closure activities and conduct post-closure care activities in accordance with the approved closure/post-closure care plan, if such plan has been prepared and approved for the disposal facility or disposal facility parcel being closed.

Rule 0400-11-01-.04(8)(d) [Rule page 100] states:

Post-Closure Care Period - For Class I and Class II disposal facilities, post-closure care must continue for 30 years after the date of final completion of closure of the disposal facility or facility parcel unless a shorter period is established in the approved closure/post-closure care plan. For Class III and IV disposal facilities, post-closure care must continue for 2 years after the date of final completion of closure of the facility or facility parcel. The post-closure care period may be reduced or extended based on cause by amendment of the approved closure/post-closure care plan as provided in subparagraph (2)(c) of Rule 0400-11-01-.03.

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Rule 0400-11-01-.04(8)(e) [Rule pages 100 and 101] states:

Post-Closure Care Activities - During the post-closure care period, the operator must, at a minimum, perform the following activities on closed portions of his facility:

- 1. Maintain the approved final contours and drainage system of the site such that the objectives of part (c)4. of this paragraph are continuously met;*
- 2. Ensure that a healthy vegetative cover is established and maintained over the site;*
- 3. Maintain the drainage facilities, sediment ponds, and other erosion/sedimentation control measures (if such are present at the landfill), at least until the vegetative cover is established sufficiently enough to render such maintenance unnecessary;*
- 4. Maintain and monitor the leachate collection, removal, and treatment system (if such is present at the facility);*
- 5. Maintain and monitor the gas collection and control system (if such is present at the facility);*
- 6. Maintain and monitor the ground and/or surface water monitoring system (if such is present at the facility). The monitoring system and sampling and analysis program established in the permit shall be continued during the post-closure care period, unless the permit is modified to establish a different system or program. Monitoring data must be reported in writing to the Division Director within 30 days after the completion of the analyses.*
- 7. Following completion of the post closure care period for each SWLF unit, the owner or operator must file with the Department a certification verifying that post-closure has been completed in accordance with the post-closure plan.*

SECTION 3: ACRONYMS

CO – Central Office

DDCO – Deputy Director of the Central Office

DDFO – Deputy Director of the Field Offices

DSWM – Division of Solid Waste Management

EFOM – Environmental Field Office Manager

FO – Field Office

FOED – Field Office Staff Member with an Engineering Degree

LTCCD – Long-Term Custodial Care Document(s)

LCOSM – Lead Central Office Staff Member

PCPC – Post-closure Plan Certification

PM – Solid Waste Program Manager

SM – Solid Waste Permitting Manager

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SECTION 4: REVIEW DOCUMENTS

All available Review Documents for this SOP are in the Solid Waste Toolkit and are to be completed and uploaded into Wastebin by the staff member completing the Review Document.

SECTION 5: BRIEF SUMMARY OF OPERATING DISPOSAL FACILITIES CLOSURE AND POST-CLOSURE REQUIREMENTS

Operating Disposal Closure/Post-closure - The operators of all disposal facilities are required to submit closure and post-closure care plans to the DSWM for review and approval [Rule 0400-11-01-.03(2)(a) - see page 4 of this document] and include an itemized estimate in current dollars with the cost based on hiring a third party to perform the closure and post-closure care activities [Rule 0400-11-01-.03(2)(b)2(iv) - see page 4 of this document]. The operators of all Class I and Class II disposal facilities must submit updated closure and post-closure plans with cost estimates every ten years for DSWM approval [Rule 0400-11-01-.03(2)(c) – see pages 4 and 5 of this document]. Financial assurance is required for both closure and post-closure care plans [Rule 0400-11-01-.03(3)(i) - see pages 5 and 6 of this document].

1. Closure - The operator must initiate and complete closure activities in accordance with the approved closure plan, if such plan has been prepared and approved for the disposal facility or disposal facility parcel being closed [Rule 0400-11-01-.04(8)(b) - see page 7 of this document]. The operator must notify the Division Director in writing within 60 days of the operator's completion of closure of the disposal facility or disposal facility parcel. Such notification must include a certification by the operator that the disposal facility or disposal facility parcel has been closed in accordance with the approved closure/post-closure care plan [Rule 0400-11-01-.04(8)(c)9 – [Rule page 100]. DSWM Staff are to follow the procedures in SWM-SWP-P143- Processing Closure Certifications/Documents (SOP) to verify that closure has been completed in accordance with the most recently approved closure plan and the final cover system was constructed in accordance with the most recently approved construction quality assurance plan.
2. Post-closure Care – Only after the Commissioner (or designee DSWM Director) has approved the closure of disposal facility or disposal facility parcel in writing to the operator under Rule 0400-11-01-.04(8)(c)9 [Rule page 100] can the operator start and complete post-closure care for 30 years for Class I and II disposal facilities and 2 years for Class III and IV disposal facilities (or other time frame established in the permit). [DSWM staff are to follow SWM-SWP-P143- Processing Closure Certifications/Documents (SOP) regarding the processing and evaluating Closure Certifications/Documents.] Following completion of the post-closure care period, the owner or operator must file with the Department a certification verifying that post-closure has been completed in accordance with the post-closure plan [Rule 0400-11-01-.04(8)(e)7 - see page 8 of this document].


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SECTION 6: FLOWCHART

The flowchart provides a **summary** of steps for processing and evaluating Post-closure Care Certifications and Long-term Custodial Care Documents. Details are provided in Section 7.

STEP 1
HANDLING PROCEDURES OF THE POST-CLOSURE PLAN CERTIFICATION AND THE LONG-TERM CUSTODIAL CARE DOCUMENTS


If the FO receives the PCPC or LTCCD, including revisions, then copies are made for the FO and CO and the original is sent to the CO Administrative File Liaison. If the CO receives the PCPC or LTCCD documents, including revisions, then a copy is made for the CO and FO and the original is sent to the CO Administrative File Liaison.



STEP 2
FO STAFF EVALUATION OF THE POST-CLOSURE PLAN CERTIFICATION AND FACILITY STATUS

The FO Geologist shall review the PCPC to determine if it verifies the operator conducted all ground water requirements for the 3 previous years in accordance with the existing updated post-closure plan and in compliance with Rule 0400-11-01-.04(8)(e)6 and Rule 0400-11-01-.04(7)(a). The FO Geologist shall also determine, for the previous 3 years, if there has been or is presently a statistically significant increase above background for any constituent that naturally occurs or, if any Appendix II constituent's concentration have been or are presently being detected equal to or above the Ground Water Protection Standards. The FO Geologist shall document these determinations in a working draft Ground Water PCPC Status Memo.

FOED shall determine if the PCPC verifies that the operator conducted all operational activities (except ground water activities) in accordance with the existing updated post-closure plan in compliance with Rule 0400-11-01-.04(8)(e)1 thru 5. FOED shall also determine whether within the 3 previous years: a) There has been or is presently uncontrolled release of leachate at the disposal facility; b) There has been or is presently leachate being generated and collected within the disposal facility that require continued management; c) There has been or is presently an active or passive system that is collecting landfill gas; d) There has been or is presently gas detected in monitoring locations at the disposal facility, or at the perimeter gas migration probe locations; and, e) There has been or is presently other site observations that indicate that there are uncontrolled releases of landfill gas into the atmosphere. The FOED shall document these determinations in a working draft Operational PCPC Status Memo.

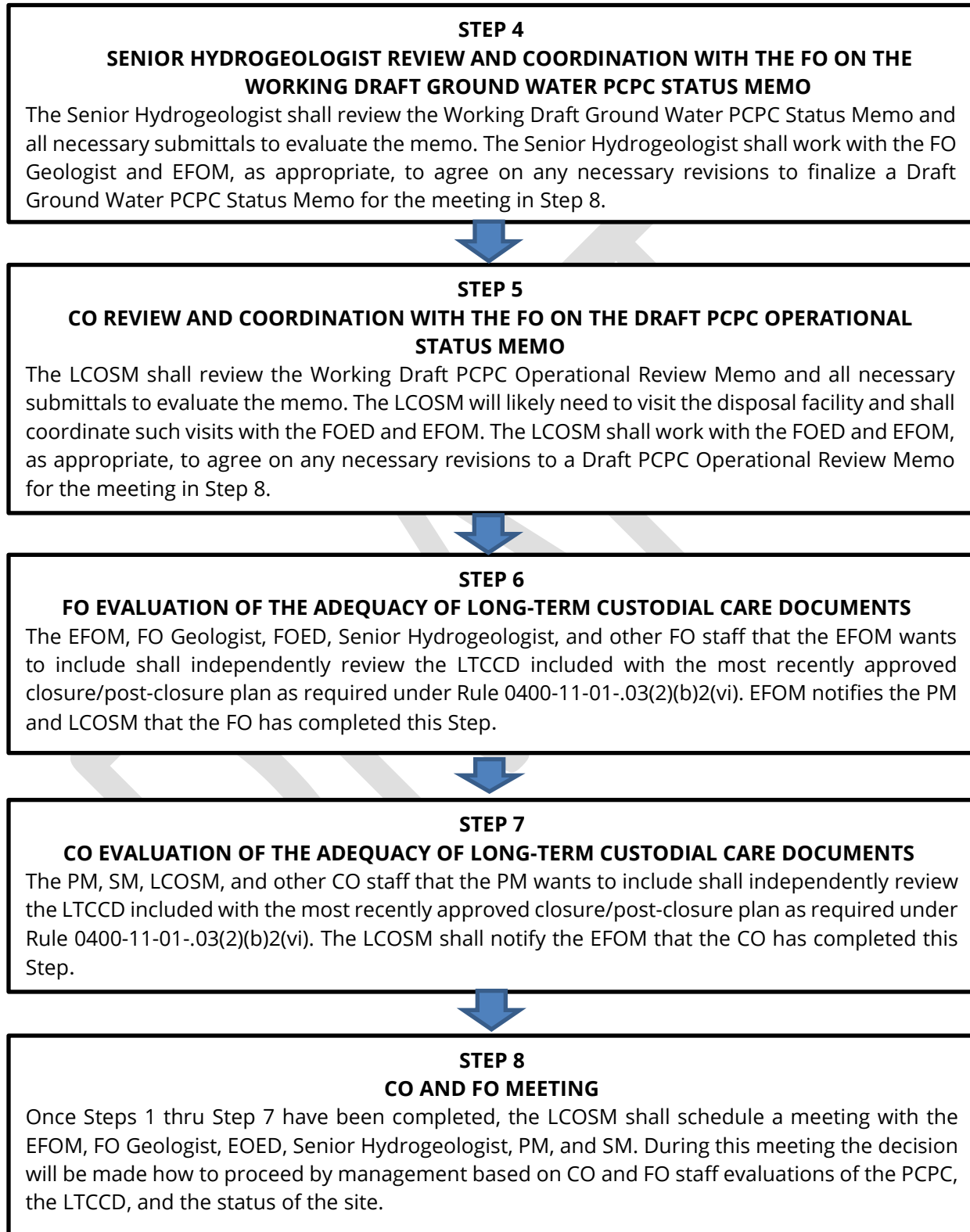


STEP 3
FO MEETING

The EFOM shall schedule a FO meeting with the FO Geologist, FOED, and other FO staff that the EFOM wants to include and discuss the: 1) Working Draft Ground Water PCPC Status Memo; and 2) Working Draft Operational PCPC Status Memo and their conclusions and make appropriate changes, if necessary.

FLOWCHART CONTINUED ON NEXT PAGE

FLOWCHART CONTINUED FROM THE PREVIOUS PAGE



SECTION 7: STEPS FOR THE PROCESSING AND EVALUATING THE POST-CLOSURE PLAN CERTIFICATION AND THE ADEQUACY OF LONG-TERM CUSTODIAL CARE DOCUMENTS

STEP 1 - HANDLING PROCEDURES OF THE POST-CLOSURE PLAN CERTIFICATION AND THE LONG-TERM CUSTODIAL CARE DOCUMENTS

1. If the FO receives the PCPC or the LTCCD, including revisions, then copies are made for the FO and CO (send to the PM) and the original must be sent to the CO Administrative File Liaison. The EFOM sends a copy to the PM.
2. If the CO receives the PCPC or the LTCCD, including revisions, then a copy is made for the CO and FO and the original must be sent to the CO Administrative File Liaison. The CO sends a copy to the appropriate EFOM.

STEP 2 - FO STAFF EVALUATION OF THE POST-CLOSURE PLAN CERTIFICATION AND FACILITY STATUS

The FO staff must locate the most recently approved post-closure plan that is part of the existing permit for the disposal facility.

1. Ground Water Portion of the PCPC– The FO Geologist shall review the PCPC to determine if it verifies the operator conducted all ground water activities (monitoring, sampling, analyses, reporting, and corrective action as necessary) in accordance with the most recently approved post-closure plan and in compliance with Rule 0400-11-01-.04(8)(e)6 [see page 8 of this document] and Rule 0400-11-01-.04(7)(a) [Rule pages 82 thru 98] for the three years prior to the PCPC date. Please refer to the DSWM's Ground Water Monitoring Guidance for Solid Waste Landfill Units for guidance with the exception of the Corrective Action Program, which is addressed in Rule 0400-11-01-.04(7)(a)7, 8, and 9 [Rule pages 91 thru 98]. The FO Geologist shall also review ground water reports/documents and determine the following:
 - a. If there has been or is presently a statistically significant increase above background for any constituent that naturally occurs or the detection of any constituent that does not naturally occur for one or more approved detection monitoring parameters as identified under Rule 0400-11-01-.07(a)5(iii) [Rule pages 88 and 89] in the past three years.
 - b. If any Appendix II constituent's concentration has been or is presently being detected equal to or above the Ground Water Protection Standards of Rule 0400-11-01-.04(7)(a)1 [see pages 6 and 7 of this document] for the three years before the PCPC date. Under Rule 0400-11-01-.04(7)(a)1(ii) the DSWM does accept a GW protection standard for constituents without MCLs equal to the Region Screening Levels for tap water levels (TR=1E-06 THQ=1.0) found at [Regional Screening Levels \(RSLs\) - Generic Tables | US EPA](#).

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2. The FO Geologist shall prepare a working draft Ground Water PCPC Status Memo stating:
 - a. His/her review of the PCPC and other reports/documents verified that post-closure has been or has not been completed in accordance with the post-closure plan and in compliance with Rule 0400-11-01-.04(8)(e)6 and Rule 0400-11-01-.04(7)(a)), (b), and (c) as applicable regarding ground water activities (monitoring, sampling, analyses, reporting, and corrective action as necessary) for the previous three years. If the PCPC did not verify that post-closure was completed in accordance with the post-closure plan and in compliance with Rule 0400-11-01-.04(8)(e)6 and Rule 0400-11-01-.04(7)(a), (b), and (c) as applicable regarding ground water activities (monitoring, sampling, analyses, reporting, and corrective action as necessary) for the previous three years, then list, with details, each item that the PCPC and other reports/documents did not verify had been completed in accordance with the post-closure plan and in compliance with Rule 0400-11-01-.04(8)(e)6 and Rule 0400-11-01-.04(7)(a)), (b), and (c) as applicable.
 - b. His/her review of the PCPC and ground water reports/documents verified that there has been or has not been a statistically significant increase above background for any constituent that naturally occurs or the detection of any constituent that does not naturally occur for one or more approved detection monitoring parameters as identified under Rule 0400-11-01-.07(a)5(iii) [Rule pages 88 and 89] in the past three years. Summarize all statistically significant increases.
 - c. His/her review of the PCPC and ground water reports/documents verified that there has been or has not been a detection of an Appendix II constituent(s) equal to or above the Ground Water Protection Standard(s) of Rule 0400-11-01-.04(7)(a)1 [see pages 6 and 7 of this document] for the three years before the PCPC date. Under Rule 0400-11-01-.04(7)(a)1(ii) the DSWM does accept a GW protection standard for constituents without MCLs equal to the Region Screening Levels for tap water levels (TR=1E-06 THQ=1.0) found at [Regional Screening Levels \(RSLs\) - Generic Tables | US EPA](#). Summarize all detections of an Appendix II constituent(s) equal to or above the Ground Water Protection Standard(s).
 - d. If applicable, address if the DSWM stated in writing (include date) that the DSWM has accepted the operator provided adequate written documentation/justification that a release(s) from the disposal facility is not responsible for any contamination identified in items 2.b or 2.c above.

The FO Geologist shall provide his working draft Ground Water PCPC Status Memo to the EFOM within 21 calendar days of receiving the original PCPC and 14 calendar days of receiving all revisions unless additional time is granted by the DDFO.

3. Operational Portion of the PCPC – The FOED shall review the PCPC to determine whether the operator conducted and verified all operational activities except ground water activities (monitoring, sampling, analyses, reporting, and corrective action as necessary

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addressed in 1 and 2 of this step) in accordance with the most recently approved post-closure plan in compliance with Rule 0400-11-01-.04(8)(e)1 thru 5 [see pages 7 and 8 of this document].

The FOED, using document reviews and site visit(s), shall determine for the three previous years if:

- a. There has been or is presently uncontrolled release of leachate at the disposal facility.
 - b. There has been or is presently leachate being generated and collected within the disposal facility that requires continued management.
 - c. There has been or is presently an active or passive system that is collecting landfill gas.
 - d. There has been or is presently gas detected in monitoring locations at the disposal facility.
 - e. There has been or is presently other site observations that indicate the uncontrolled releases of landfill gas into the atmosphere.
4. The FOED shall prepare a working draft Operational PCPC Status Memo stating:
- a. His/her review of the PCPC, other documents, and site visits verified that operational activities (except ground water activities such as monitoring, sampling, analyses, reporting, and corrective action as necessary addressed in 1 and 2 of this step) have been or have not been completed in accordance with the post-closure plan. If the FOED verified that operational activities (except ground water activities such as monitoring, sampling, analyses, reporting, and corrective action as necessary addressed in 1 and 2 of this step) have not been completed in accordance with the post-closure plan, then specifically list, with details, each item that the PCPC did not verify that had been completed in accordance with the post-closure plan; and
 - b. His/her document reviews and site visits for the previous three years the FOED documents if any of the following do or do not exist (please address each item listed below in the affirmative or negative):
 - 1) There has been or is presently uncontrolled release of leachate at the disposal facility.
 - 2) There has been or is presently leachate being generated and collected within disposal facility that require continued management.
 - 3) There has been or is presently an active or passive system that is collecting landfill gas.
 - 4) There has been or is presently gas detected in monitoring locations at the disposal facility.
 - 5) There has been or is presently other site observations that indicate the uncontrolled releases of landfill gas into the atmosphere.

Summarize all affirmative determinations of items 1 thru 5 above.

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The FOED shall provide a copy of the working draft Operational Status PCPC Memo to the EFOM within 21 calendar days of receiving the original PCPC and 14 calendar days of receiving all revisions unless additional time is granted by the DDFO.

STEP 3: FO MEETING

The EFOM shall schedule a FO meeting with the FO Geologist, EOED, and other FO staff that the EFOM wants to include and discuss the: 1) Working Draft Ground Water PCPC Status Memo; and 2) Working Draft Operational PCPC Status Memo and their conclusions and make appropriate changes. The FO Geologist or FOED as appropriate shall make changes to the draft documents for additional review, discussion, and modification, if necessary. FO meetings/revisions shall continue until the FO drafts are finalized working drafts. The EFOM shall email the finalized: 1) Working Draft Ground Water PCPC Status Memo; and 2) Working Draft Operational PCPC Status Memo to the PM and Senior Hydrogeologist.

STEP 4: SENIOR HYDROGEOLOGIST REVIEW AND COORDINATION WITH THE FO ON THE WORKING DRAFT GROUND WATER PCPC STATUS MEMO

The Senior Hydrogeologist shall review the Working Draft Ground Water Status Memo and all necessary submittals to evaluate the memo. The Senior Hydrogeologist shall work with the FO Geologist and EFOM, as appropriate, to agree on any necessary revisions. Once the Senior Hydrogeologist, FO Geologist, and EFOM have agreed on any revisions necessary, the FO Geologist shall complete the Finalized Draft Ground Water Status Memo and a copy shall be emailed to the EFOM and PM and the Senior Hydrogeologist copied.

STEP 5: CO REVIEW AND COORDINATION WITH THE FO ON THE DRAFT PCPC OPERATIONAL STATUS MEMO

The PM shall assign a LCOSM to review the Working Draft Operational Review Memo. The LCOSM shall review the Working Draft Operational Review Memo and all necessary submittals to evaluate the memo. The LCOSM will likely need to visit the disposal facility and needs to coordinate such visits with the FOED and EFOM. The LCOSM shall work with the FOED and EFOM, as appropriate, to agree on any necessary revisions. Once the LCOSM, FOED, and EFOM have agreed on any necessary revisions, the FOED shall complete the Draft Operational Status Memo and email it to the EFOM and PM and copy the LCOSM.

STEP 6: FO EVALUATION OF THE ADEQUACY OF LONG-TERM CUSTODIAL CARE DOCUMENTS

The EFOM, FO Geologist, FOED, Senior Hydrogeologist, and other FO staff that the EFOM wants to include shall independently review the LTCCD included with the most recently approved closure/post-closure plan as required under Rule 0400-11-01-.03(2)(b)2(vi) [page 4 of this document]. The EFOM or his/her designee shall schedule a meeting including the EFOM, FO Geologist, FOED, Senior Hydrogeologist, and other FO staff that the EFOM wants to include to discuss the adequacy of the LTCCD based on the Ground Water Status Memo and the Operational Status Memo. The group shall determine, based on the facility status memos, if the

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proposed LTCCD adequately addresses the long-term care activities necessary to protect human health and the environment. The EFOM or his designee shall prepare draft notes of the team's conclusions about the adequacy of the LTCCD and notify the PM that the FO and the Senior Hydrogeologist have completed this Step.

STEP 7: CO EVALUATION OF THE ADEQUACY OF LONG-TERM CUSTODIAL CARE DOCUMENTS

The PM, SM, LCOSM, and other CO staff that the PM wants to include shall independently review the LTCCD included with the most recently approved closure/post-closure plan as required under Rule 0400-11-01-.03(2)(b)2(vi) [page 4 of this document]. The PM or his/her designee shall schedule a CO meeting including the PM, SM, LCOSM, and other FO staff that the PM wants to include to discuss the adequacy of the LTCCD based on the draft Ground Water FO Facility Status Memo and the draft Operational Facility Status Memo. The group shall determine, based on the facility status memos, if the proposed LTCCD adequately addresses the long-term care activities necessary to protect human health and the environment. The PM or his/her designee shall prepare draft notes on the team's conclusions about the adequacy of the LTCCD and notify the EFOM that the CO has completed this Step.

STEP 8: CO AND FO MEETING

Once Steps 1 thru Step 7 have been completed, the PM or his/her designee shall schedule a meeting/call including the Director, DDCO, DDFO, PM, SM, LCOSM, EFOM, FO Geologist, FOED, and Senior Hydrogeologist. The PM or his/her designee shall provide the DDCO, DDFO, and SM with copies of the most recent PCPC, LTCCD, and all items listed in 1 thru 4 below. The PM or EFOM may include any other staff they deem as necessary. The purpose of this meeting is to determine if the PCPC should be accepted and the adequacy of the LTCCD considering at a minimum the following:

1. Draft Ground Water Status Memo.
2. Draft Operational Status Memo.
3. The Draft FO Evaluation of the Adequacy of the Long-Term Custodial Care Documents.
4. The Draft CO Evaluation of the Adequacy of the Long-Term Custodial Care Documents.

At the conclusion of this meeting, the decision will be made how to proceed by management based on CO and FO staff evaluations of the PCPC, LTCCD, and status of the site. All finalized documents shall be uploaded into WasteBin and a copy emailed to the CO Administrative File Liaison.

REVISION HISTORY TABLE

Revision Number	Date	Brief Summary of Change
0	MM/DD/YY	Initial