



Sustainability in Action

October 4, 2024

Michael Smith
Project Manager
MC-124

Texas Commission on Environmental Quality
12100 Park 35 Circle
Austin, Texas 78753

Re: Response to Notice of Deficiency Letter – Limited Scope Major Permit
Amendment Application
Southwest Landfill
Randall County, Texas
MSW Permit No.: 1663C
Tracking No. 29885599

Action Id _____

Comm TR # _____

PM _____

Dear Mr. Smith:

On behalf of Southwest Landfill TX, LP, please find enclosed one original and three copies of the replacement pages for the referenced Limited Scope Major Permit Amendment application. The attached replacement pages were developed to incorporate comments included in your letter dated September 6, 2024.

The response letter contains each comment identified by the TCEQ (in bold) and a response to each.

1. Part I/II, Section 2.1.4, bullet 3. Clarify that the protective cover is above both the geomembrane and the leachate collection system.

Response:

The third bullet on page I/II-2-9 was revised to clarify the order of the Subtitle-D liner system.

2. Part III, Appendix IIIB, Section 6. Demonstrate that site leachate contaminant concentrations and groundwater gradients have not increased since the overliner point-of-compliance demonstration was submitted in 2018. Explain why no side gradient monitor wells were modelled along the area to receive the Subtitle D alternate liner design.

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WASTE PERMITS DIVISION
TEXAS COMMISSION ON
ENVIRONMENTAL QUALITY

Response:

A review of the semi-annual groundwater monitoring report groundwater elevation maps provided by Hydrex Environmental from June 2020 through June 2024 was performed to assess changes in groundwater gradients. No increases in groundwater gradient were observed since the overliner point of compliance was developed in 2018; therefore, no changes were made to the point of compliance demonstration. Groundwater elevation maps prior to the February 20, 2020 approval of the major permit application MSW-1663C were ignored as the maps did not include data from the northern portion of the site. Additionally, historical site leachate contaminant concentrations provided by the site were analyzed for any increases since the original point of compliance demonstration was performed. Arsenic and Chromium values were found to have minor increases and were incorporated into Table 2-1. Tables 4-1, 5-1, and 6-3 were updated to reflect the minor increases in arsenic and chromium and updated C_p values. The total concentration at the point of compliance is still below the required MCL.

No side gradient monitoring wells were modeled along the Subtitle-D alternative liner areas as the groundwater flows in a northern direction downgradient of the monitoring wells along the side of the disposal footprint. An analysis of the June 2020 through June 2024 groundwater elevation maps shows the direction of groundwater flow remains consistent over time.

3. Part III, Appendix IIIB, Section 6.2. Explain why percolation rates based on leakage through geomembrane defects were not applied to the Subtitle D and alternate bottom liner areas during time periods when final cover systems were not in place on those areas.

Response:

As shown on Figure 1 and Figure 2 in Appendix IIIB-D, a percolation rate of 0.0001 mm/yr was applied to the Subtitle-D alternative liner areas through the active life of the site. The percolation rate through the alternative liner areas was estimated by the HELP model and summarized on page IIIB-D-11. Note 3 on the HELP model summary page indicates the highest percolation rate from the interim conditions was used as the input into MODFLOW.

4. Part III, Appendix IIIB, Section 6.4, Table 6.2. Ensure the dilution attenuation factor for Case III matches the dilution attenuation factor shown on Appendix IIIB-D, Figure 5.

Response:

Table 6.2 in Appendix IIIB, Section 6.4 was revised to reflect the correct DAF value for Case III, which is correctly shown in Figure 5 in Appendix IIIB-D.

5. Part III, Appendix IIIB-D, Figure 3. Remove the leftmost $10E-9$ contour from the expanded detail.

Response:

Figure 3 in Appendix IIIB-D was revised to add the DAF contours and label to the top section and revised the bottom section label to show a DAF at 1×10^7 .

6. Part III, Appendix IIID, Liner Quality Control Plan. Section 2.2. Clarify that any geosynthetic clay liner for the alternate liner design in Sectors 17D through 29 would replace a compacted clay liner and not a geomembrane.

Response:

Appendix IIID section 2.2 was revised to clarify a GCL can only replace the 2-foot-thick compacted clay liner portion of the liner.

7. Part III, Appendix IIIE-A, p IIIE-A-1. Demonstrate that geosynthetic clay liner and compacted clay liner share similar strength parameters or provide the appropriate stability analyses incorporating parameters for geosynthetic clay liner.

Response:

Review of the infinite stability analyses output table included in Appendix IIIE-A-4 confirms that, for the LSMPA, infinite slope stability analyses were run for both the internal strength of clay liner as well as the internal strength of the reinforced geosynthetic clay liner (GCL). As demonstrated in the table, the strength parameters for the GCL internal strength are greater than the values assumed for the clay liner soils (as derived from the 2018 permit amendment application), and therefore reasonably could be expected to have higher factors of safety when analyzed and as confirmed in the table. As analyses of both the clay liner soils and GCL are included in Appendix IIIE-A-4, the referenced text edits originally included on sheet IIIE-A-1 of the LSMPA have been stricken as irrelevant to the analyses.

8. Part III, Appendix IIIE-B, p IIIE-B-3. Explain how settlement, heave, and strain analyses for geosynthetic clay liner as an over liner are appropriate for a geosynthetic clay liner as a bottom liner or provide the appropriate settlement, heave, and strain analyses for geosynthetic clay liner as a bottom liner.

Response:

The material-specific conclusions presented in the original settlement analyses (Appendix IIIE-B, Sheet IIIE-B-1-30) have been revised to incorporate the allowable settlement-related strain for GCL. As shown on Sheet IIIE-B-1-30, the allowable level of strain for GCL's exceeds the calculated strain for the liner system as presented in the 2018 analyses.

9. Part III, Appendix IIIE, Geotechnical Report, p IIIE-A-4-2. Clarify that the composite liner system will have either a compacted clay liner or a geosynthetic clay liner but not both. Provide protective cover between the leachate collection layer and the select waste.

Response:

The Detail on Sheet IIIE-A-4-2 in Appendix IIIE was revised to show the liner and leachate collection system components correctly, including showing the protective cover between the leachate collection layer (geocomposite) and the select waste. A note has been added to clarify that a geosynthetic clay liner (GCL) may be used in lieu of a compacted clay liner for the MSW sectors only.

10. Part III, Appendix IIIE, Geotechnical Report, p IIIE-A-4-11. Provide results for compacted clay liner against subgrade and geosynthetic clay liner against subgrade on the 3H:1V maximum slope.

Response:

The infinite stability analysis has been revised to incorporate the compacted clay liner/subgrade and GCL/subgrade interfaces on the 3H:1V slope.

During the course of your review, if you need additional information or have any questions, please call.

Sincerely,



Brian Danko
Environmental Manager

Attachment: Limited Scope Major Permit Amendment Replacement Pages
(1 original and 3 copies)

cc: TCEQ Region 1
Kyle Gould, P.E., Weaver Consultants Group, LLC

**SOUTHWEST LANDFILL
RANDALL COUNTY, TEXAS
TCEQ PERMIT NO. MSW-1663C**

**SECTION 305.62(j)(2)
LIMITED SCOPE MAJOR PERMIT AMENDMENT**

**ALTERNATIVE LINER DESIGN
SECTORS 17D THROUGH 29**

Prepared for

Southwest Landfill TX, LP

June 2024

Revised October 2024



Prepared by

10/04/2024

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
817-735-9770

Project No. 0120-094-11-140

ATTACHMENT 1

**SECTION 305.62(J)(2) LIMITED SCOPE MAJOR
PERMIT AMENDMENT REPLACEMENT PAGES
(REDLINE/STRIKEOUT VERSION)**

Applicant Signature Page

Site Operator (Permittee or Registrant Name) or Authorized Signatory

I certify under penalty of law 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 gather and evaluate 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 submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Name: Brian Danko Title: Environmental Manager

Email Address: [REDACTED]

Signature: Brian Danko Date: 10/04/2024

Authorization by Facility Owner for Operator to Submit Application

To be completed by the facility owner if the application is submitted by an operator who is not the facility owner.

I am the owner of the facility that is the subject of this application, and authorize the operator, _____ to submit this application pursuant to 30 TAC 305.43(c).

Name: _____ Title: _____

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said Brian Danko

On this 4th day of October, 2024

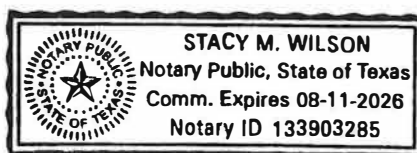
My commission expires on the 11th day of August, 2026

Stacy M. Wilson

Notary Public in and for

Tarrant (notary's jurisdiction, including county and state)

Note: Application Must Bear Signature & Seal of Notary Public



Property Owner Affidavit

Property Owner Affidavit for Landfill Facility

I acknowledge in accordance with 30 TAC 330.59(d)(2) that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure and post-closure care of the facility. For a facility where waste will remain after closure, I acknowledge that I have a responsibility to file with the county deed records an affidavit to the public advising that the land will be used for a solid waste facility prior to the time that the facility actually begins operating as a municipal solid waste landfill facility, and to file a final recording upon completion of disposal operations and closure of the landfill units according to 30 TAC 330.19 (relating to Deed Recordation). I further acknowledge that the facility owner or operator and the State of Texas shall have access to the property during the active life and post-closure care period for the purpose of inspection and maintenance.

Name: Brian Danko

Email Address: [REDACTED]

Signature: Brian Danko Date: 10/04/2024

Property Owner Affidavit for Processing Facility

I acknowledge in accordance with 30 TAC 330.59(d)(2) that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure of the facility. I further acknowledge that the facility owner or operator and the State of Texas shall have access to the property during the active life and post-closure care period for the purpose of inspection and maintenance.

Name: _____

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said Brian Danko

On this 4th day of October, 2024

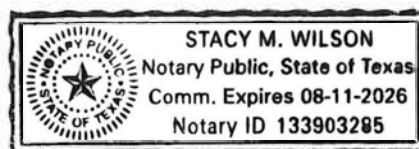
My commission expires on the 11th day of August, 2026

Stacy M. Wilson

Notary Public in and for

Tarrant (notary's jurisdiction, including county and state)

Note: Application Must Bear Signature & Seal of Notary Public



**SOUTHWEST LANDFILL
RANDALL COUNTY, TEXAS
TCEQ PERMIT NO. MSW-1663C**

**LIMITED SCOPE MAJOR PERMIT AMENDMENT
APPLICATION**

**PARTS I/II
GENERAL APPLICATION REQUIREMENTS**

Prepared for:

Southwest Landfill TX, LP

TCEQ Approved February 20, 2020

Revised June 2024

Revised July 2024

Revised October 2024



Prepared by:

10/04/2024

Weaver Consultants Group, LLC
TBPE Registration No. F-3727
6420 Southwest Boulevard, Suite 206
Fort Worth, Texas 76109
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WCG Project No. 0120-094-11-140

This document intended for permitting purposes only.