Texas Commission on Environmental Quality

Correspondence Cover Sheet
Waste Permits Division

Date: 05/22/2026
Facility Name: City of Waco Landfill
Permit, Registration, or Authorization No.: 2400

Nature of Submittal:
☒ Initial
☐ Deficiency Response to TCEQ Tracking No.: _____
(from subject line of TCEQ Notice of Deficiency)

Affix a completed Correspondence Cover Sheet to the front of each submission to the Waste Permits Division. Check ***one box*** to indicate type of correspondence. Call (512) 239-2335 if you have questions.

Table 1 - Municipal Solid Waste Correspondence

Applications	Reports and Communications
Permit (New): ☐ Landfill ☐ Processor ☐ Compost	☐ Alternative Daily Cover Status Report
☐ Registration Application (New)	☐ Closure Report
☐ Major Amendment	☐ Compost Report
☐ Limited Scope Major Amendment	☐ Groundwater Alternate Source Demonstration
☒ Modification with Public Notice	☐ Groundwater Corrective Action Report
☐ Modification without Public Notice	☐ Groundwater Monitoring Report
☐ Ownership Transfer/Name Change Modification	☐ Groundwater Background Evaluation Report
☐ Temporary Authorization	☐ Landfill Gas Corrective Action Report
☐ Voluntary Revocation	☐ Landfill Gas Monitoring Report
Subchapter T: ☐ Permit ☐ Registration	☐ Liner Evaluation Report
☐ Subchapter T Disturbance Non-Enclosed Structure	☐ Soil Boring Plan
Notice of Intent: ☐ New ☐ Revision ☐ Closure	☐ Special Waste Request
☐ Other Application:	☐ Other Report or Communication:

Table 2 - Industrial & Hazardous Waste Correspondence

Applications	Reports and Notifications	
☐ CCR Registration (New)	☐ Extension Request	☐ Interim Status Change
☐ Permit Application (New)	☐ CfPT Plan/Result	☐ Interim Status Closure Plan
☐ Permit Renewal	☐ CPT Plan/Result	☐ Closure Certification/Report
☐ Post-Closure Order (New)	☐ Construction Certification/Report	**CCR Notifications:**
☐ Major Amendment	☐ Corrective Action Effectiveness Report	☐ CCR Closure Care Plan
☐ Minor Amendment	☐ Groundwater Alternative Source Demonstration Report	☐ CCR Design Criteria
Class of Permit Modification: ☐ 1 ☐ 1ED ☐ 2 ☐ 3	☐ Groundwater Background Evaluation Report	☐ CCR Groundwater Monitoring and Corrective Action Report
☐ Endorsement	☐ Groundwater Monitoring Report	☐ CCR Location Restriction
☐ Temporary Authorization	☐ Soil Core Monitoring Report	☐ CCR Operating Criteria
☐ Voluntary Revocation	☐ Treatability Study	☐ CCR Post-closure Care Plan
☐ 335.6 Notification	☐ Trial Burn Plan/Result	☐ Other Report or Notification (specify):
☐ Other:	☐ Unsaturated Zone Monitoring Report	

May 22, 2026
File No. 16225102.00

Ms. Megan Henson
Waste Permits Division
Texas Commission on Environmental Quality
12100 Park 35 circle Building F (MC-124)
Austin, Texas 78753

Subject: City of Waco Landfill
Municipal Solid Waste (MSW) Permit No. 2400
Permit Modification to Address Revisions for use of Alternate Daily Cover (ADC)
Commercial Spray on Product, VERDac Landfill Cover Pellets
McLennan County, Texas
CN600131940; RN110471307

Dear Ms. Henson:

On behalf of City of Waco (City), SCS Engineers (SCS) has prepared the attached permit modification application for City of Waco Landfill (landfill), TCEQ Permit No. 2400. This permit modification request has been prepared in accordance with Texas Administrative Code (TAC) §305.70(k)(1) related to the use of an alternate daily cover (ADC) material on a permanent basis in accordance with §330.165(d). Specifically, this permit modification is being requested for the use of the commercial spray on product, VERDac Landfill Cover Pellets (VERDac), as manufactured by LSC Environmental Products, LLC. as ADC.

This permit modification application is being submitted following the below mentioned authorizations/reports/notifications:

- TCEQ authorized a temporary authorization to use VERDac as ADC on September 5, 2025 (Tracking No. 31841784).
- In a letter dated September 22, 2025, SCS provided a 10-Day Notice of Intent to utilize VERDac as ADC to Ms. Megan Henson, MSW Permits Section Manager, TCEQ Region 9 office.
- Two-month written status reports regarding the use of VERDac were submitted on December 2, 2025, February 3, 2026, and April 1, 2026 (Tracking Nos.31841784 and 32712240). Additional two-month written status reports will be submitted on June 1, 2026 and August 1, 2026.
  A temporary authorization extension for this ADC was approved by TCEQ on March 10, 2026 (Tracking No. 32712240).

In an effort to minimize the amount of time that the landfill will not be able to use the VERDac [i.e., between the last day of the temporary authorization extension (August 31, 2026) and approval of this permit modification), we are respectfully requesting that this permit modification be reviewed and approved pending submission of the final status report.

This permit modification application includes **a revision** to Part IV – Site Operating Plan to incorporate information related to the use of VERDac as ADC.

Consistent with 30 TAC §305.70(d), this submittal addresses minor changes to the landfill that do not substantially alter the permit conditions and do not reduce the capability of the facility to protect human health and the environment. Based on our review of the regulations, this permit modification requires a public notice; therefore, the adjacent landowners list and map has been included in Attachment B.

Consistent with §305.70(f), we are submitting one original and two copies of the attached permit modification, with one of the copies marked to clearly show the above described revisions using redline/strikeout format for narrative pages. Also, we have included a completed Application Form to support this modification. Lastly, in accordance with §330.59(h)(1), SCS has also remitted payment of the $150.00 application fee through e-Pay (see Attachment A for receipt).

If you have any questions or comments concerning this submittal, please contact Sandeep Saraf, P.E. at (407) 923-7013.

Sincerely,

Kevin Rodriguez

Kevin Rodriguez, E.I.T.
Associate Professional
SCS ENGINEERS
TBPE Registration No. F-3407

Sandeep Saraf

Sandeep Saraf, P.E.
Project Director
SCS ENGINEERS

Attachments
Attachment A: Permit Modification Application Form and E-Pay Receipt
Attachment B: TCEQ Core Data Form
Attachment C: Landowner's List and Map
Attachment D: Marked Version
Attachment E: Unmarked Version

Cc:
Kody Petillo, City of Waco
Amanda Dyer, City of Waco
Alfonso Garcia, City of Waco
Windy Loutherback, City of Waco
John Heffelfinger, City of Waco
TCEQ Region 9

ATTACHMENT A

PERMIT/REGISTRATION MODIFICATION AND E-PAY RECEIPT

Texas Commission on Environmental Quality

Application Form for Municipal Solid Waste Permit or Registration Modification or Temporary Authorization

Application Tracking Information

Facility Name: City of Waco Landfill

Permittee or Registrant Name: City of Waco

MSW Authorization Number: 2400

Initial Submission Date: May 2026

Revision Date: _____

Instructions for completing this form are provided in form TCEQ-20650-instr[1]. If you have questions, contact the Municipal Solid Waste Permits Section by email to mswper@tceq.texas.gov, or by phone at 512-239-2335.

Application Data

1. Submission Type

(•) Initial Submission ( ) Notice of Deficiency (NOD) Response

2. Authorization Type

(•) Permit ( ) Registration

3. Application Type

(•) Modification with Public Notice ( ) Modification without Public Notice

( ) Temporary Authorization (TA) ( ) Modification for Name Change or Transfer

4. Application Fee

Amount

The application fee for a modification or temporary authorization is $150.

Payment Method

(•) Online through ePay portal www3.tceq.texas.gov/epay/

If paid online, enter ePay Trace Number: 582EA000736481

( ) Check

[1] www.tceq.texas.gov/downloads/permitting/waste-permits/msw/forms/20650-instr.pdf

Page Revision Date: _____

5. Electronic Versions of Application

For modifications that require public notice, TCEQ will publish electronic versions of the applications online. Applicants must provide complete electronic copies of their initial applications, responses to notices of deficiencies, and the final technically complete versions. (Refer to instructions for this form for how to submit electronically.)

6. Party Responsible for Mailing Notice

For modifications that require notice, indicate who will be responsible for mailing notice:

○ Applicant ○ Agent in Service ◉ Consultant

Contact Name: Sandeep Saraf, P.E.

Title: Project Director

Email Address: [redacted]

7. Confidential Documents

Does the application contain confidential documents?

○ Yes ◉ No

If "Yes", reference the confidential documents in the application, but submit the confidential documents as an attachment in a separate binder marked "CONFIDENTIAL."

8. Facility General Information

Facility Name: City of Waco Landfill

Contact Name: Kody Petillo Title: Director of Public Works

MSW Authorization Number (if existing): 2400

Regulated Entity Reference Number: **RN** 110471307

Physical or Street Address: 4730 TK Parkway

City: Waco County: McLennan State: TX Zip Code: 76624

Phone Number: 254-750-6627

Latitude (Decimal Degrees): N 31°42'16.36"

Longitude (Decimal Degrees): W 96°55'59.66"

9. Facility Types

☒ Type I ☐ Type IV ☐ Type V

☐ Type IAE ☐ Type IVAE

Page Revision Date: _____

10. Description of the Revisions to the Facility

Provide a brief description of revisions to permit or registration conditions and supporting documents referred to by the permit or registration, and a reference to the specific provisions under which the modification or temporary authorization application is being made. Also, provide an explanation of why the modification or temporary authorization is needed:

This permit modification request has been prepared in accordance with Texas Administrative Code (TAC) §305.70(k)(1) related to the use of an alternate daily cover (ADC) material on a permanent basis in accordance with §330.165(d). Specifically, this permit modification is being submitted for the use of the commercial spray on product, VERDac Landfill Cover Pellets (VERDac), as manufactured by LSC Environmental Products, LLC. as ADC.

11. Facility Contact Information

Site Operator (Permittee or Registrant)

Name: City of Waco

Customer Reference Number: **CN** 600131940

Contact Name: Kody Petillo Title: Director of Public works

Mailing Address: P.O. Box 2570

City: Waco County: McLennan State: TX Zip Code: 76702

Phone Number: 254-750-6627

Email Address: [redacted]

Texas Secretary of State (SOS) Filing Number: _____

Operator (if different from *Site Operator*)

Name: _____

Customer Reference Number: **CN** _____

Contact Name: _____ Title: _____

Mailing Address: _____

City: _____ County: _____ State: _____ Zip Code: _____

Phone Number: _____

Email Address: _____

Texas Secretary of State (SOS) Filing Number: _____

Page Revision Date: _____

Consultant (if applicable)

Firm Name: SCS Engineers

Consultant Name: Sandeep Saraf, P.E.

Texas Board of Professional Engineers Firm Registration Number: F-3407

Contact Name: Sandeep Saraf, P.E. Title: Project Director

Mailing Address: 1901 Central Drive, Suite 550

City: Bedford County: Tarrant State: TX Zip Code: 76021

Phone Number: 407-923-7013

Email Address: [redacted]

Agent in Service (required for out-of-state applicants)

Name: _____

Mailing Address: _____

City: _____ County: _____ State: TX Zip Code: _____

Phone Number: _____

Email Address: _____

12. Ownership Status of the Facility

Is this a modification that changes the legal description, the property owner, or the Site Operator (Permittee or Registrant)?

○ Yes ◉ No

If the answer is "No", skip the next question and proceed to signature page.

Does the Site Operator (Permittee or Registrant) own all the facility units and all the facility property?

◉ Yes ○ No

If "No", provide the following information for other owners.

Owner Name: _____

Mailing Address: _____

City: _____ County: _____ State: TX Zip Code: _____

Phone Number: _____

Email Address: _____

Page Revision Date: _____

Signature Page

Facility Owner or Authorized Operator Signature

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: Ryan Holt Title: City Manager DS

Email Address: [redacted]

Signature: _____ Date: 05/14/2026

Owner Authorization for Operator to Submit Application

To be completed by the facility owner if the application is signed by authorized operator.

I hereby authorize _____
any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a Texas Water Code or Texas Solid Waste Disposal Act permit. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any permit which might be issued based upon this application.

Facility Owner Name: _____

Email Address: _____

Signature: _____ Date: _____

Notary

SUBSCRIBED AND SWORN to before me by the said Ryan Holt

On this 14th day of May, 2026

My commission expires on the 27th day of January 2028

Brandy Bustillos

Notary Public in and for

McLennan County, Texas

BRANDY BUSTILLOS
My Notary ID # 128786483
Expires January 27, 2028

Note: Application Must Bear Signature and Seal of Notary Public

Attachments to Application for Municipal Solid Waste Modification or Temporary Authorization

Table 1. Attachments Required for All Modifications and Temporary Authorizations

Attachment	Attachment Number
TCEQ Core Data Form(s)	B
Fee Payment Receipt	A
Confidential Documents (if applicable)	N/A
Marked (redline/strikeout) Pages	D
Unmarked Revised Pages	E

Table 2. Additional Attachments for Modifications Requiring Public Notice

Attachment	Attachment Number
Land Ownership Map	C
Landowners List	C

Table 3. Additional Attachments for Permit or Registration Name Change or Transfer Modification

Attachment	Attachment Number
Land Ownership Map	
Landowners List	
Property Legal Description	
Property Metes and Bounds Description	
Metes and Bounds Drawings	
Final Plat Record of Property (if applicable)	
On-Site Easements Drawing	
Property Owner Affidavit	
Verification of Legal Status	
Evidence of Competency	

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
EPAY • ONLINE PAYMENT APPLICATION

Your transaction is complete. Thank you for using TCEQ ePay.

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt and the vouchers for your records. An email receipt has also been sent.

Transaction Information

Trace Number:	582EA000736481
Date:	05/26/2026 09:15 AM
Payment Method:	CC - Authorization 000003166Z
ePay Actor:	KRYSTAL L KUNTZ
Actor Email:	[redacted]
IP:	99.48.161.145
TCEQ Amount:	$150.00
Texas.gov Fee:	$3.63
Texas.gov Price:	$153.63*

* This service is provided by Texas.gov, the official website of Texas. The price of this service includes funds that support the ongoing operations and enhancements of Texas.gov, which is provided by a third party in partnership with the State.

Payment Contact Information

Name:	RYAN KUNTZ
Company:	SCS ENGINEERS
Address:	1901 CENTRAL DR SUITE 550, BEDFORD, TX 76021
Phone:	817-358-6117

Cart Items

Click on the voucher number to see the voucher details.

Voucher	Fee Description	AR Number	Amount
832815	NONHAZARDOUS WASTE PERMIT - MODIFICATIONS		$100.00
832816	30 TAC 305.53B HWP NOTIFICATION FEE		$50.00
		TCEQ Amount:	$150.00

ePay Again | Exit ePay

Note: It may take up to 3 working days for this electronic payment to be processed and be reflected in the TCEQ ePay system. Print this receipt for your records.

ATTACHMENT B

TCEQ CORE DATA FORM

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions on completing this form, please read the Core Data Form Instructions or call 512-239-5175.

SECTION I: General Information

1. Reason for Submission (*If other is checked please describe in space provided.*)

☐ New Permit, Registration or Authorization (*Core Data Form should be submitted with the program application.*)

☐ Renewal *(Core Data Form should be submitted with the renewal form)*

☒ Other **Permit Modification**

2. Customer Reference Number *(if issued)*	Follow this link to search for CN or RN numbers in Central Registry**	**3. Regulated Entity Reference Number** *(if issued)*
CN 600131940		**RN 110471307**

SECTION II: Customer Information

4. General Customer Information | **5. Effective Date for Customer Information Updates** (mm/dd/yyyy)

☐ New Customer ☒ Update to Customer Information ☐ Change in Regulated Entity Ownership
☐ Change in Legal Name (Verifiable with the Texas Secretary of State or Texas Comptroller of Public Accounts)

The Customer Name submitted here may be updated automatically based on what is current and active with the Texas Secretary of State (SOS) or Texas Comptroller of Public Accounts (CPA).

6. Customer Legal Name *(If an individual, print last name first: eg: Doe, John)* — *If new Customer, enter previous Customer below:*

City of Waco

7. TX SOS/CPA Filing Number	**8. TX State Tax ID** (11 digits)	**9. Federal Tax ID** (9 digits)	**10. DUNS Number** *(if applicable)*
N/A	N/A	N/A	N/A

11. Type of Customer:

☐ Corporation ☐ Individual Partnership: ☐ General ☐ Limited
Government: ☒ City ☐ County ☐ Federal ☐ Local ☐ State ☐ Other ☐ Sole Proprietorship ☐ Other:

12. Number of Employees

☐ 0-20 ☒ 21-100 ☐ 101-250 ☐ 251-500 ☐ 501 and higher

13. Independently Owned and Operated?

☒ **Yes** ☐ **No**

14. Customer Role (Proposed or Actual) – *as it relates to the Regulated Entity listed on this form. Please check one of the following*

☐ Owner ☐ Operator ☒ Owner & Operator
☐ Occupational Licensee ☐ Responsible Party ☐ VCP/BSA Applicant ☐ Other:

15. Mailing Address:

P.O. Box 2570

City	Waco	**State**	TX	**ZIP**	76702	**ZIP + 4**	2570

16. Country Mailing Information *(if outside USA)*	**17. E-Mail Address** *(if applicable)*
N/A	[redacted]

18. Telephone Number	19. Extension or Code	20. Fax Number *(if applicable)*
(254) 750-6627		( ) -

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected, a new permit application is also required.)*

☐ New Regulated Entity ☐ Update to Regulated Entity Name ☒ Update to Regulated Entity Information

The Regulated Entity Name submitted may be updated, in order to meet TCEQ Core Data Standards (removal of organizational endings such as Inc, LP, or LLC).

22. Regulated Entity Name *(Enter name of the site where the regulated action is taking place.)*

City of Waco Landfill

23. Street Address of the Regulated Entity: ***(No PO Boxes)***	4730 TK Parkway							
	City	Waco	**State**	TX	**ZIP**	76624	**ZIP + 4**	
24. County	McLennan							

If no Street Address is provided, fields 25-28 are required.

25. Description to Physical Location:	

26. Nearest City	**State**	**Nearest ZIP Code**
Waco	TX	76712

Latitude/Longitude are required and may be added/updated to meet TCEQ Core Data Standards. (Geocoding of the Physical Address may be used to supply coordinates where none have been provided or to gain accuracy).

27. Latitude (N) In Decimal:			**28. Longitude (W) In Decimal:**		
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
31	42	16.36	96	55	59.66

29. Primary SIC Code (4 digits)	**30. Secondary SIC Code** (4 digits)	**31. Primary NAICS Code** (5 or 6 digits)	**32. Secondary NAICS Code** (5 or 6 digits)
4953	5093	562212	562211

33. What is the Primary Business of this entity? *(Do not repeat the SIC or NAICS description.)*

Municipal Solid Waste Landfill

34. Mailing Address:								
	P.O. Box 2570							
	City	**Waco**	**State**	**TX**	**ZIP**	**76702**	**ZIP + 4**	**2570**
35. E-Mail Address:	[redacted]							

36. Telephone Number	**37. Extension or Code**	**38. Fax Number** *(if applicable)*
(254) 750-6627		( ) -

39. TCEQ Programs and ID Numbers Check all Programs and write in the permits/registration numbers that will be affected by the updates submitted on this form. See the Core Data Form instructions for additional guidance.

☐ Dam Safety	☐ Districts	☐ Edwards Aquifer	☒ Emissions Inventory Air	☐ Industrial Hazardous Waste
			MBA010J	
☒ Municipal Solid Waste	☒ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
2400	177794			
☐ Sludge	☒ Storm Water	☒ Title V Air	☐ Tires	☐ Used Oil
	TXR05GU79	O-4693		
☐ Voluntary Cleanup	☐ Wastewater	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Sandeep Saraf, P.E.	**41. Title:**	Project Director

42. Telephone Number	**43. Ext./Code**	**44. Fax Number**	**45. E-Mail Address**
(407 **)** 923-7013		**( )** -	[redacted]

SECTION V: Authorized Signature

46. By my signature below, I certify, to the best of my knowledge, that the information provided in this form is true and complete, and that I have signature authority to submit this form on behalf of the entity specified in Section II, Field 6 and/or as required for the updates to the ID numbers identified in field 39.

Company:	City of Waco	**Job Title:**	Director of Public Works	
Name *(In Print):*	Kody Petillo		**Phone:**	**(** 254 **)** 750- **6627**
Signature:	Kody Petillo		**Date:**	05/19/2026

ATTACHMENT C

LANDOWNER'S LIST AND MAP

LIST OF LANDOWNERS WITHIN A QUARTER MILE
Permit No. MSW 2400
City of Waco Landfill

The following landowner list provides the names, mailing addresses, and locations of the "Adjacent and Potentially Affected Landowners" around the facility. The list is based on Deed Records for Hill County, Limestone County, McLennan County, and includes all tracts within 1/4-mile of the site. Refer to the Landowner's map (Drawing C.1), for location of the properties. The numbering on the landowner list corresponds to the numbers listed on the drawing. Additionally, no mineral interest owners were identified under the permit boundary, based on the real property appraisal records at the Hill, Limestone, or McLennan Central Appraisal District.

1	CITY OF WACO PO BOX 2570 WACO TX 76702	2	STATE OF TEXAS 100 S LOOP DR WACO TX 76704
3	DUNLAP BILLIE JOYCE 536 ST HWY 31 MT CALM TX 76673	4	DUNLAP JOE W & CYNTHIA 211 STATE HWY 31 MT CALM TX 76673
5	TRAYLER JAMES F 20 WALKERS CROSSING WACO TX 76705	6	TE KAY RANCH CHURCH AND CEMETERY PO BOX 565 BELTON TX 76513-056
7	SWANER FRED LEE JR 4351 TK PKWY AXTELL TX 76624	8	POWSER CODY MORRIS 4418 TK PKWY AXTELL TX 76624
9	HARMON MISTY 4396 TK PKWY AXTELL TX 76624	10	JIMENEZ ENRIQUE AND MARIA 4070 TK PKWY AXTELL TX 76624
11	REED DAVID L 3444 TK PKWY AXTELL TX 76624	12	JAMESON MARY JO GRUBBS TRUSTEE ET AL 6777 CAMP BOWIE BLVD FORT WORTH TX 76116
13	COGGIN MARY RUTH 532 LCR 112 AXTELL TX 76624		

CITY OF WACO
PO BOX 2570
WACO TX 76702

STATE OF TEXAS
100 S LOOP DR
WACO TX 76704

DUNLAP BILLIE JOYCE
536 ST HWY 31
MT CALM TX 76673

DUNLAP JOE W & CYNTHIA
211 STATE HWY 31
MT CALM TX 76673

TRAYLER JAMES F
20 WALKERS CROSSING
WACO TX 76705

TE KAY RANCH CHURCH AND CEMETERY
PO BOX 565
BELTON TX 76513-056

SWANER FRED LEE JR
4351 TK PKWY
AXTELL TX 76624

POWSER CODY MORRIS
4418 TK PKWY
AXTELL TX 76624

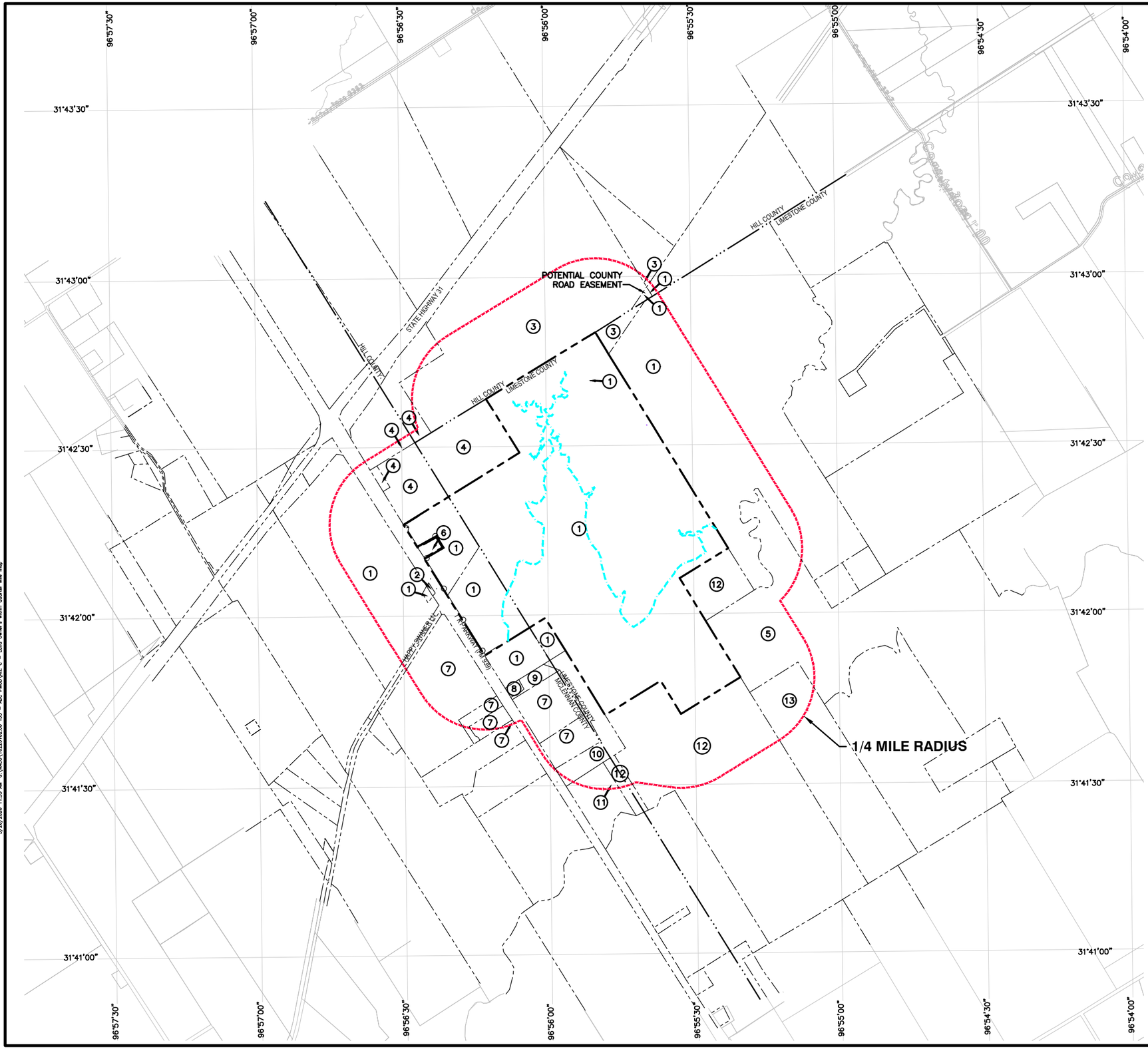
HARMON MISTY
4396 TK PKWY
AXTELL TX 76624

JIMENEZ ENRIQUE AND MARIA
4070 TK PKWY
AXTELL TX 76624

REED DAVID L
3444 TK PKWY
AXTELL TX 76624

JAMESON MARY JO GRUBBS TRUSTEE ET AL
6777 CAMP BOWIE BLVD
FORT WORTH TX 76116

COGGIN MARY RUTH
532 LCR 112
AXTELL TX 76624



0 900 1800
SCALE IN FEET

N

LEGEND

- PERMIT BOUNDARY
- ADJACENT PROPERTY BOUNDARY
- COUNTY LINE
- 1/4 MILE RADIUS
- 96°55'30" LATITUDE/LONGITUDE LINES
- LIMESTONE COUNTY FLOODPLAIN

NOTES:

1. (X) CORRESPONDS TO LANDOWNERS LISTED ON LANDOWNERS LIST.
2. PROPERTY OWNERS WITHIN 1/4 MILE OF THE PERMIT BOUNDARY ARE SHOWN.
3. LANDOWNER PROPERTY BOUNDARIES INDICATED ARE APPROXIMATE.

STATE OF TEXAS
SANDEEP D. SARAF
136850
LICENSED
PROFESSIONAL ENGINEER
5-22-26

FOR PERMITTING PURPOSES ONLY

REV	DATE	DESCRIPTION	BY

TEXAS BOARD OF PROFESSIONAL ENGINEERS REG. NO. F-3407

DRAWING TITLE: LANDOWNER'S MAP

PROJECT TITLE:
CITY OF WACO LANDFILL
TCEQ PERMIT NO. MSW - 2400
PERMIT MODIFICATION APPLICATION

CLIENT:
CITY OF WACO
SOLID WASTE SERVICES

SCS ENGINEERS
STEARNS, CONRAD AND SCHMIDT
CONSULTING ENGINEERS
1901 CENTRAL DRIVE, SUITE 550, BEDFORD, TX 76021
PH (817) 571-2288 FAX NO. (817) 571-2188

PROJ. NO. 16225102.00 | DSN. BY: KAR | DWN. BY: KAR | CHK. BY: SDS | QA/QC BY: KAR | APP. BY: SDS

CADD FILE: ATT. C – LAND OWNER'S WITHIN QUARTER MILE MAP

DATE: 5/2026

SCALE: AS SHOWN

DRAWING NO. C.1

5/26/2026 11:33 AM G:\WACO\16225102.00 T33 – ADC PMOD\Att. C – Land Owner's within Quarter Mile map

ATTACHMENT D

MARKED VERSION

CITY OF WACO LANDFILL
TCEQ PERMIT NO. MSW-2400
McLENNAN AND LIMESTONE COUNTIES, TEXAS

PART IV
SITE OPERATING PLAN

Prepared for:

CITY OF WACO

Solid Waste Services
501 Schroeder Drive
Waco, TX 76710

Prepared by:

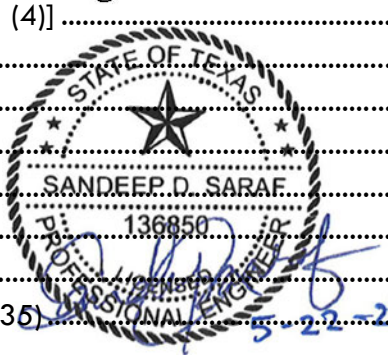
SCS ENGINEERS
Texas Board of Professional Engineers, Reg. No. F-3407
Dallas/Fort Worth Office
1901 Central Drive, Suite 550
Bedford, Texas 76021
817/571-2288

Revision 0 - April 2020
Revision 1 – October 2020
Revision 2 – June 2021
Revision 3 – October 2021
Revision 4 – September 2023
Revision 5 – July 2024
Revision 6 – May 2026
SCS Project No. 16216088.00

TABLE OF CONTENTS

SECTION **PAGE**

SCS Engineers
TBPE Reg. # F-3407



Figures

Tables

Appendices

SCS Engineers
TBPE Reg. # F-3407

thickness and condition in the Cover Application Log, as described in Section 4.18.6 of this SOP.

- After each rainfall event, the Landfill Manager or designee will inspect all daily cover areas for erosion, exposed waste or other damage, and repair, as needed as described in Section 4.18.5. Runoff from areas that have intact daily cover is considered to not have come in contact with the working face or leachate.

- The Landfill Manager or designee will inspect for seeps from daily cover. Seepage water from waste below the daily cover will be managed as contaminated water. Contaminated water will be treated as outlined in Attachment 12 - Leachate and Contaminated Water Plan.

Inactive areas with 6 inches of daily cover will be inspected weekly for erosion, ponded water, seeps, protruding waste, or other detrimental conditions that may cause contaminated runoff from the daily cover. After a period of 180 days, an additional 6 inches of earthen material not previously mixed with garbage, rubbish or other solid waste will be placed over inactive areas with daily cover for a total of not less than 12 inches of cover. This 12-inch-thick layer of cover soil will be classified as "intermediate cover" as described in Section 4.18.3 of this SOP. Once the area becomes active again, the top 6 inches may be stripped off for use as daily cover, provided it can be removed without contamination by contact with solid waste.

Alternate daily cover may be used at the site in accordance with 30 TAC §330.165(d) and as described in Appendix IVB (Alternative Daily Cover Operating Plan).

4.18.3 Intermediate Cover

All areas that have received waste but will be inactive for longer than 180 days will be covered with an additional 6 inches of well-compacted cover material, for a total cover thickness of at least 12 inches within 180 days after placement of daily cover. The top six inches of the intermediate cover will be capable of sustaining native plant growth and will be seeded, or sodded following application in order to control erosion. The intermediate cover will be graded and maintained to prevent ponding. Runoff from areas that have intact intermediate cover is not considered as having come into contact with the working face or leachate.

The Landfill Manager or designee will inspect intermediate cover at the site weekly for erosion, ponded water, seeps, protruding waste, or other detrimental conditions that may cause contaminated runoff. Erosion gullies or washed-out areas will be repaired within 5 days of detection, weather permitting, as described in Section 4.18.5.

4.18.4 Final Cover

Consistent with the Attachment 9 - Final Closure and Post-Closure Care Plan, final cover will be placed in a manner compatible with ongoing fill activities and landfill development. Surface water will be managed throughout the active life of the landfill to minimize infiltration into the filled areas and to minimize contact with solid waste. Erosion of final cover will be repaired within 5 days of detection, weather permitting, by restoring the cover material, grading, compacting, and

APPENDIX IVB

ALTERNATIVE DAILY COVER OPERATING PLAN

ATTACHMENT E

UNMARKED VERSION

CITY OF WACO LANDFILL
TCEQ PERMIT NO. MSW-2400
McLENNAN AND LIMESTONE COUNTIES, TEXAS

PART IV
SITE OPERATING PLAN

Prepared for:

CITY OF WACO

Solid Waste Services
501 Schroeder Drive
Waco, TX 76710

Prepared by:

SCS ENGINEERS
Texas Board of Professional Engineers, Reg. No. F-3407
Dallas/Fort Worth Office
1901 Central Drive, Suite 550
Bedford, Texas 76021
817/571-2288

Revision 0 - April 2020
Revision 1 – October 2020
Revision 2 – June 2021
Revision 3 – October 2021
Revision 4 – September 2023
Revision 5 – July 2024
Revision 6 – May 2026
SCS Project No. 16216088.00

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TBPE Reg. # F-3407

STATE OF TEXAS
SANDEEP D. SARAF
136850
PROFESSIONAL ENGINEER
5-22-26

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TBPE Reg. # F-3407

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APPENDIX IVB

ALTERNATIVE DAILY COVER OPERATING PLAN

CITY OF WACO LANDFILL
McLENNAN COUNTY, TEXAS
TCEQ MSW PERMIT NO. 2400

ALTERNATE DAILY COVER OPERATING PLAN

Prepared for:

City of Waco

SCS Engineers
TBPE Reg. # F-3407

Prepared by:

SCS ENGINEERS
Dallas/Fort Worth Office
1901 Central Drive, Suite 550
Bedford, Texas 76021
817/571-2288

Revision 0 – May 2026

SCS Project No. 16225102.00

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SCS Engineers
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SECTION 1

INTRODUCTION

This Alternative Daily Cover Operating Plan (ADCOP) has been prepared for the City of Waco Landfill (Waco Landfill) consistent with 30 TAC §330.165(d)(1). The purpose of this ADCOP is to address the following issues:

- Description and thickness of each ADC material.
- Effect of the ADC on vectors, fires, odors, and windblown litter.
- Chemical composition of the material and the MSDS(s) for the ADC (if applicable).
- Other pertinent characteristics, features, or other factors related to the use of ADC.
- Operation methods to be utilized at the site when using the ADC.

ADC may be used to cover exposed waste as an alternative to soil cover, provided that certain operational techniques are used as specified in this ADCOP.

SECTION 2

MATERIAL CHARACTERISTICS

2.1 DESCRIPTION OF ADC MATERIALS: §330.165(D)(1)(A)

The following types of ADC materials may be used at the Waco Landfill:

- Spray-on ADCs are sprayed at the working face using mobile applicators. Ingredients of these ADCs vary according to the manufacturer, but include recycled paper and wood, as well as proprietary ingredients. One type of spray-on ADC is as follows:
    - VERDac Landfill Cover Pellets (VERDac), a product of LSC Environmental Products, LLC, is sprayed at the working face using a mobile applicator. VERDac is manufactured from mulch and mineral mortar slurry comprised of water and a proprietary combination of cellulose fiber, powdered clay, adhesives, and water conditions. Technical data on VERDac is included in Attachment 1.

2.2 EFFECT ON VECTORS, FIRES, ODORS AND WINDBLOWN LITTER: §330.165(D)(1)(B)

The ADC's effect on vectors, fires, odors and windblown litter is included in Attachment 1 (VERDac Landfill Cover Pellets) of this ADCOP. The ADC materials proposed for use at the Waco Landfill suppress odors, inhibit attraction of vectors, and are effective for fire control and windblown litter control.

2.3 CHEMICAL COMPOSITION CHARACTERISTICS: §330.165(D)(1)(D)

Characteristics of the ADC material are included in the Attachment 1 (VERDac Landfill Cover Pellets) of this ADCOP. The ADC materials proposed for use at the Waco Landfill are not reactive, ignitable, or corrosive.

2.4 OTHER PERTINENT CHARACTERISTICS, FEATURES, OR OTHER FACTORS RELATED TO THE USE OF ADC: §330.165(D)(1)(E)

Other pertinent characteristics, features, or other factors related to the use of the ADC material are included in the Attachment 1 (VERDac Landfill Cover Pellets) of this ADCOP.

SECTION 3

OPERATIONAL METHODS

The following subsections discuss the operational procedures that will be used to employ the proposed ADC materials. For each type of ADC, the Waco Landfill personnel will verify that the waste fill area has been covered with the minimum required thickness at the completion of each working day.

3.1 SPRAY-ON ADCS

The spray-on ADC included in this plan is VERDac. The material will be applied to the working face using a FINN T90 (900-gallon capacity) or similar equipment following the procedure listed below:

1. The operator will become familiar with the MSDS sheet on the product to be used before operating the application machine for ADC.
2. The operator will not operate the application machine until he has been trained by qualified personnel.
3. The operator will mix the spray ADC according to the manufacturer's recommendations. Then, using the application machine, the operator will apply the ADC from at least two different directions to achieve an overall thickness consistent with manufacturer's recommendations over the exposed waste at the working face.
4. ADC will not be used if the landfill is closed for more than 24 hours.

Based on experiences at numerous landfills in Texas and other states, these types of ADC have been shown to be effective in controlling vectors, fires, odors and windblown litter and waste.

SECTION 4

ADC VERIFICATION AND INSPECTION PROCEDURES

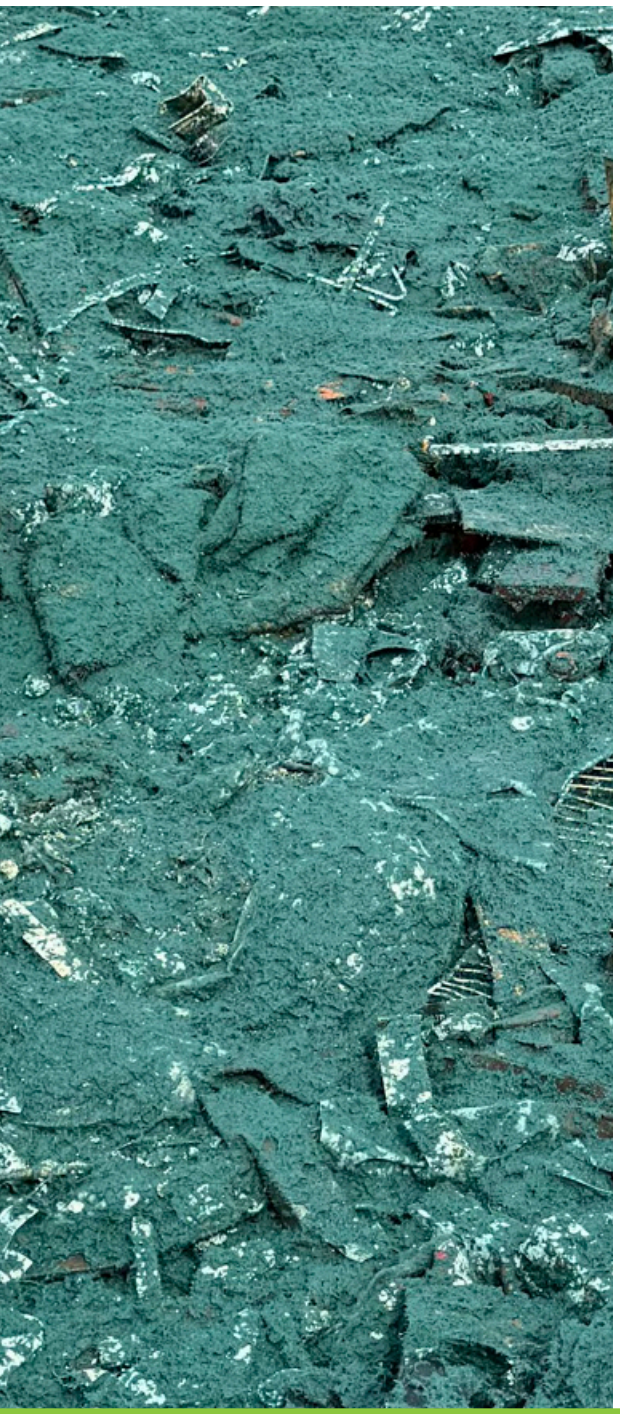
At the end of each working day, the Waco Landfill personnel will inspect the working face to verify that the minimum thickness of an approved ADC has been placed over the exposed wastes in accordance with this ADCOP. The Waco Landfill personnel will routinely assess the effectiveness of each ADC in controlling vectors, fires, odors, and windblown waste based on field observations of material performance.

The ADC, described in this ADCOP, was allowed during a temporary authorization period in accordance with 30 TAC §330.165(d). TCEQ determined the time frame for the temporary authorization period to be from October 2025 to August 2026. The City submitted to TCEQ status reports on a two-month basis in accordance with 30 TAC §330.165(d)(2). The status reports described the effectiveness of the ADC, any problems that may have occurred, and corrective actions required. Status reporting will not be required after consecutive use of the ADC during the temporary authorization period with no problems.

ATTACHMENT 1

VERDac LANDFILL COVER PELLETS

VERDac
LANDFILL COVER



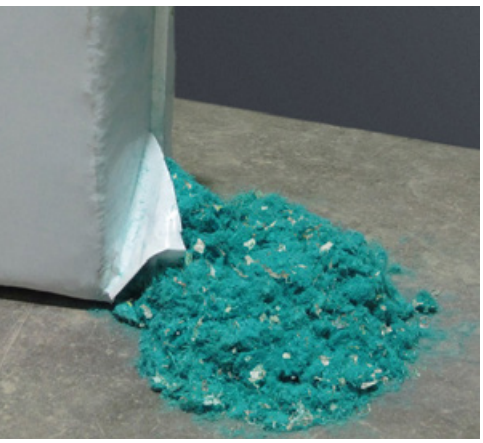
A low cost daily cover that actually works.

VERDac™ Baled is an economical spray applied cover that reduces equipment costs, liberates manpower, significantly shortens your daily cover operation, and returns valuable airspace formerly consumed by bulky soil cover.

- **Extend landfill life**
- **Shorten cover time**
- **Reduce equipment cost**
- **Reallocate manpower**

LSC Environmental Products, LLC
www.LSCenv.com • [redacted] • 800-800-7671

VERDac
LANDFILL COVER



Contact us today for more information.

MADE IN THE USA VAC0224

Save time while you're saving airspace.

Mixing and application is accomplished in about an hour using LSC equipment or standard hydroseeding units.

Features:

- Meets all daily cover requirements
- Non-flammable, mulch and Posi-Shell® Technology
- Adheres to landfill surfaces
- Ideal for recycling waste latex paint
- Packaged in 50 lb (22.7 kg) bales, 40 bales per pallet

For technical services or to locate your nearest VERDac™ dealer:

LSC ENVIRONMENTAL PRODUCTS, LLC ™

Call: **1-800-800-7671** • [redacted]
Visit LSC online at: **www.LSCenv.com**
LSC Environmental Products, LLC
2183 Pennsylvania Ave., Apalachin, NY 13732

ENVIRONMENTAL PRODUCTS, LLC™

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VERDac
LANDFILL COVER PELLETS

USAGE GUIDE

August 2020

Table of Contents

This guide gives you specific, easy to follow instructions for the safe and efficient usage of LSC Environmental Products VERDac Landfill Cover Pellets product. For best results and to ensure safety, please follow the instructions carefully.

1.0 Definition of VERDac Landfill Cover Pellets

VERDac Landfill Cover Pellets is a spray-applied mulch and mineral mortar slurry comprised of water and a proprietary combination of cellulose fiber, powdered clay, adhesives, and water conditioners, used for waste cover and hydroseeding. It is a low-cost alternative to the conventional six inches (150 mm) of soil used as daily cover at most landfills. VERDac Pellets is a non-flammable blend of mulch and mineral binder providing a thin, non-toxic coating that performs all functions of landfill daily cover. Applied with a standard hydroseeding unit, this product provides increased landfill capacity while providing a more environmentally effective cover system for the landfill.

1.1 Background and Concept

Landfilled solid waste must be covered each day to control vectors, fires, odors, blowing litter, and scavenging. Cover material is generally defined as a six inch (150 mm) soil layer or other suitable material. VERDac Pellets is designed for use by a landfill operator at the close of each operating day for compliance with cover regulations.

For most situations VERDac Pellets provides cover ranging from 10 ft^2 to 15 ft^2 per gallon (0.93 to 1.4 m^2/liter) of slurry but depending on conditions and desired quality coverage up to 30t^2 per gallon (2.8 m^2/L.) can be achieved. The coverage area is dependent upon the desired thickness and the texture of the covered surface. Application of VERDac Pellets is a one-man operation.

1.2 Environmental and Economic Benefits

Use of VERDac Pellets conserves energy, natural resources and improves air quality by eliminating the use of heavy earthmoving equipment for the transporting, laying, and reworking of some soil covers on the landfill.

The major benefit of the use of VERDac Pellets is the conservation of extremely valuable landfill capacity, commonly known as “air space”. Landfill air space is a valuable asset and the need to conserve capacity is paramount to achieve environmental and economic objectives for both landfill operators and regulatory agencies. Efficient use of air space today can directly translate into longer landfill life, decreased operating costs, and increased revenue generation. An increase in air space efficiency up to 20% delays the need for the siting and construction of new facilities that ultimately may have severe environmental and economic impacts.

1.3 Equipment

The equipment used for VERDac Pellets consists of a standard hydroseeding unit, a towing unit, and a water source. The towing unit is used for moving the hydroseeding unit around the landfill site. If a nearby hydrant or other water source is not available, then a water trailer or truck is required.

1.4 Personnel

One operator is required for VERDac Pellets. This operator must be capable of operating heavy equipment and be familiar with the mechanics of all equipment used. The operator may be trained by LSC Environmental Products in the use of VERDac Pellets. If preferred, a two man operation may be used to expedite coverage time.

1.5 Materials

1.5.1 Water

Potable water, non-potable water and landfill leachate can be used as the liquid portion of VERDac Pellets. Use of leachate requires site-specific regulatory approval, operations, and safety plan to assure proper health and safety practices are implemented. In most VERDac Pellet mixtures approximately 1000 gallons (3785 liters) of water is used for each load of VERDac Pellets.

Each 50 lb (22.7 kg) bag of VERDac Pellets typically mixes with approximately 80 gallons (303 liters) of water. The water can either be supplied by a hydrant, pumped from a nearby pond, or brought to and stored adjacent to the hydroseeding unit by water truck or trailer. The sizing of the specific water supply method should be adequate to ensure that the filling of the hydroseeding unit occurs within a few minutes time.

As stated, leachate can be used as a water source if specific regulatory approval is obtained. It is not recommended that a high-strength leachate be used due to odor concerns and the added safety precautions required to assure worker safety. However, use of relatively dilute leachate is an effective method for reducing a portion of a landfill's total leachate production. The inherent odor-neutralizing properties of VERDac Pellets can mitigate the potential odor problems of leachate when it is used as a water source.

1.5.2 VERDac Landfill Cover Pellets

A proprietary blend of finely ground mulch, mineral binders and coloring mixed with water creates the VERDac Pellets Landfill Cover. See the back of this manual for a GHS Safety Data Sheet for this material.

1.5.3 Xtreme Rain Shield

During light rains, VERDac Pellets coatings will not typically wash off. However, if heavy rains are expected prior to the product fully drying (12-24 hours) the addition of Xtreme Rain Shield may help to prevent washing.

2.0 Safety

VERDac Pellets is nonhazardous and is composed of nonhazardous materials. Certain safety measures are recommended during different aspects of VERDac Pellets use. **Follow safety procedures specific to your hydroseeding unit, towing unit, or other equipment used.**

3.0 Operator Attire

The operator should wear appropriate protective clothing as specific by site management. Recommended protective clothing may include the following:

- Safety glasses
- Work gloves
- Approved work clothing
- Reinforced-Toe work shoes or boots
- P95 Dust mast while emptying bags into mixing unit

If leachate is being used as the liquid portion of the VERDac Pellets mixture, protective clothing in accordance with site regulations should be worn.

4.0 Towing Units

See table on Page 11 for VERDac Pellets material weights. To determine the total load weight, add the liquid weight, VERDac Pellets material weight and the weight of your hydroseeding unit. Ensure that the towing unit and hitch arrangement are capable of handling the total of these weights. *Note: 100 gallons/378.5 liters of water weighs approximately 836 lbs./379 kg.*

5.0 Loading and Mixing Procedure

It is important to add the VERDac Landfill Cover Pellets materials in the order specified.

5.1 Liquid Addition (Step 1)

Before placing any dry material in the mixing tank, the tank must be filled with the appropriate amount of liquid (water or leachate). Each 50 lb (22.7 kg) bag of VERDac Pellets typically mixes with 80 gallons (303 liters) of water. See chart on Page 11. If your hydroseeding unit has a reserve water tank, fill at this time with clean water. It is not recommended to use leachate as the clean out water.

All bags of material (VERDac Pellets Landfill Cover and Xtreme Rain Shield) can be loaded through the side rails of the hydroseeding unit onto the mixing deck from the ground. Ensure that they do not obstruct the ladder area. Never attempt to carry materials up or down ladders. To avoid back injuries, always use proper lifting practices when handling bags. Frozen materials should not be used.

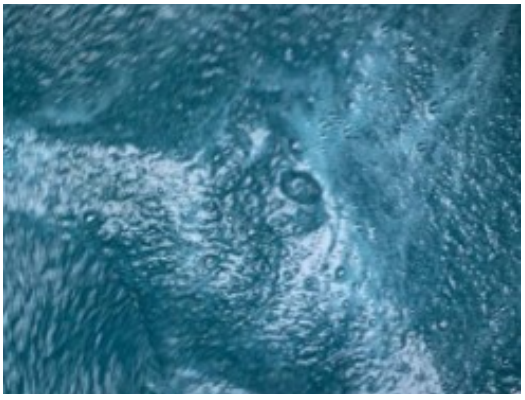
5.2 VERDac Landfill Cover Pellets Addition (Step 2)

VERDac Pellets or Xtreme Rain Shield produces very little dust but a dust mask is recommended to prevent inhalation, and coveralls and gloves to prevent skin contact. Safety glasses should be worn to keep dust from entering the eyes. Should eyes or skin come in physical contact with any VERDac ingredients thoroughly rinse with water.

With mixer paddles running at medium speed add VERDac Pellets material by cutting open bag and dumping contents into the mixing tank (discard bag). See chart on Page 11 for quantities. Allow VERDac Pellets to mix at high speed for about 5 minutes until peaks and craters are visible on the surface of the product. Properly thickened VERDac Pellets will have a somewhat homogenous consistency. (see left photo below).

5.3 Optional Xtreme Rain Shield

During light rains, VERDac Pellets coatings will not typically wash off. However, if heavier rains are expected prior to the product fully drying (12-24 hours), the addition of up to 20% Xtreme Rain Shield may be necessary. Operator experience and discretion will determine which Xtreme Rain Shield formulation is best suited for the situation. With mixer paddles running at medium speed, add material to the already thickened VERDac Pellets by cutting open the bag and gradually adding the contents into the mixing tank (discard bag). For better dispersion of this product into the VERDac Pellets, recirculation through the pump and back to tank may be necessary. Properly thickened VERDac Pellets with Xtreme Rain Shield added will be more homogenous and a lighter green color than basic VERDac Pellets (see right photo below).



Properly Thickened VERDac Pellets

6.0 Transporting

Close inlet hopper lid prior to transportation and leave mixer paddles turning at low speed.

6.1 Cold Weather VERDac Pellets Transport

To prevent freezing during extremely cold weather (below 20°F -6°C), recirculate product through system back to mixing tank.

6.2 Towing on Slopes

To avoid the possibility of equipment tipping over, always tow up or back down slopes. DO NOT traverse (tow sideways) across slopes.

Proper orientation of equipment on slope

7.0 Application of VERDac Pellets

For overnight cover, conventional end-of-day waste compaction and surface preparation are normally adequate prior to VERDac Pellets application. A smoother surface will require less material due to reduced surface area.

Methods of application and the recommended finished appearance of VERDac Pellets are shown in the photographs on the next page. In general, the operator should position the application unit upwind, and should select the spray nozzle appropriate to the distance from the waste pile. When changing nozzles, be sure to disengage pump before disconnecting nozzle. In some cases, it will be necessary to spray a given area from two directions to compensate for "spray shadow" effects or wind dispersion. The most effective method of coverage will vary with each site, but generally, if opposite spray angles cannot be achieved due to operational constraints, the product is best applied from the location at which it will be observed most often.

When high winds are encountered, it may be necessary to position the hydroseeding unit in an upwind position. Since pumps emit a high pressure stream of slurry it is not generally effected by light winds; however, wind direction should always be considered with respect to airborne dispersion of overspray.

The application process is not typically affected by cold weather.

Daily Cover

Application of VERDac Pellets for hydroseeding

Application of VERDac Pellets via
Deck -Mounted Discharge Wand

7.1 Odor Control

VERDac Pellets formulation has an inherent capability to suppress odors. By applying the VERDac Pellets as a daily cover, typical landfill odors will be reduced.

Where excess or extreme odors warrant additional action, contact LSC for information about our Odor-Shell® product.

7.2 Vector Control

VERDac Pellets Landfill Cover has proven affective at inhibiting the attraction of vectors to waste piles.

7.3 Scavenging

General animal scavenging is reduced since the VERDac Pellets seals in odors and hides the visible food source beneath the covering shell. Scavenging by humans is inhibited by the complete visual coverage of the waste pile and by the coating of slurry applied upon all surface objects.

7.4 Litter Control

VERDac Pellets is highly effective for litter control. Due to the sticky consistency and weight of the material, a shell is formed over the garbage which prevents litter from being blown away by high winds. A thin layer of VERDac Pellets is recommended for preventing blowing litter.

In extremely windy situations, VERDac Pellets can be applied to waste as it is being unloaded from garbage trucks. This technique has been proven highly effective.

7.5 Fire Control

VERDac Pellets is an extremely effective fire control material. Independent laboratory testing of VERDac Pellets by ASTM D-4982 method has certified that VERDac Pellets is non-fuel contributing, non-smoke producing, and non-combustible. When an acetylene torch is applied directly to the VERDac Pellets cover, ignition of the VERDac Pellets cover or underlying waste does not occur.

7.6 Additional Applications

VERDac Pellets may also be used as a hydroseeding medium. Addition of EarthGuard® may be required for some landfill surfaces. Contact us for more details.

VERDac Landfill Cover Pellets
Application Minimum Requirements Guideline

	SHORT TERM COVER (**Depending on conditions cover can last overnight to several days)**
SLURRY MIXTURE*	VERDac Landfill Cover Pellets (See next page for mixtures)
APPLICATION RATE	Approx. 10-15 ft^2/gal.** (0.93 - 1.4 m^2/L.)
COVERAGE METHOD	Apply from two directions to compensate for spray shadow.
COVERAGE THICKNESS	Finished cover should be Approx. 1/8" (3.5 mm)
COVERAGE APPEARANCE	Depending on surface conditions, some trash may be visible. Product still 100% functional.
COVERAGE MAINTENANCE	None. Waste is placed over cover next working day.

* These are manufacturer's recommendations. Use and practice will determine the best mixture for each situation.
** Depending on conditions and desired quality, up to 30 ft^2/gal. (2.8 m^2/L.) can be achieved.

VERDac Landfill Cover Pellets Formulations Guide

Materials	Base	
Water or Leachate (Gallons)	1000	(~80 gallons per bag of VERDac Pellets
VERDac: 50 lb Bag	13	
Xtreme Rain Shield (50 lb Bag)	1-2	(May be necessary for heavy rain)
Finished Product (Gallons)	1000	

Materials	Base	
Water or Leachate (Liters)	3,785	(~303 liters per bag of VERDac Pellets
VERDac 23 kg Bag	13	
Xtreme Rain Shield (23 kg Bag)	1-2	(May be necessary for heavy rain)
Finished Product (Liters)	3,785	

Some leachate, hard water, and salty water may require more VERDac Pellets to achieve proper thickness.
These are manufacturer's recommendations. Use and practice will determine the best mixture for each situation.

7.7 Discharge Nozzle Selection

While other nozzles may be used, LSC Environmental Products offers numerous types of discharge nozzles for the effective spraying of VERDac Pellets at a variety of ranges. Experience and operator discretion will determine which nozzle to use in each situation.

Long Range (Solid Stream) for Distances of 100—150 feet (30—46 meters)

Medium/Long Range (15° Flat Spray) for Distances of 75—100 feet (23—30 meters)

Medium Range (25° Flat Spray) for Distances of 25—75 feet

Short Range (50° Flat Spray) for Distances of 5—25 feet

High Efficiency (25° Low Flow Spray) for Distances of 5—25 feet

7.8 Handling the Discharge Spray Boom

Care must be taken to use the proper discharge nozzle in order to attain the desired spray range, as being too close to the surface will cause the VERDac Pellets stream to overturn waste on contact. At long range distances the VERDac Pellets stream will break up, causing the desired spray effect. At ranges under 75 ft. (23 meters) the medium or short nozzle should be used and are designed to spray in a wide fan pattern.

Blockages may occur in nozzles due to foreign objects in the raw materials. Refer to Section 11.1 for procedure on removing foreign object from discharge nozzle.

With the desired nozzle securely in place, firmly grasp discharge spray handle in one hand and point discharge nozzle in desired direction of spray. With the other hand engage product pump and begin covering area. For desired spray effect operator may adjust pump or throttle speed.

Never disconnect nozzles when pump is running. Never engage pump with discharge spray boom unattended. Never put hands in front of discharge nozzles.

Do not spray at or near other persons. Spray exits nozzle at a high velocity and could cause injury.

Do not spray toward power lines, transformers or other high voltage conductors. Avoid spraying into wind. When unavoidable, be sure to keep direction of spray near to ground. Safety glasses should be worn during spraying operation.

7.9 Coverage of Large Area

Coverage of a large area will require moving the application unit to several spray locations. Inspect the area from several perspectives to ensure that the spray has covered all areas.

8.0 Cleaning

It is recommended that the hydroseeding unit be cleaned after use. VERDac Pellets may be used over several days and will not set up in the mixing tank. After the product is all used, the unit should be cleaned.

1. When tank is empty of product, shut off pumps, paddles, and engine.
2. Open all inlet lids.
3. With clean water, rinse product from inlets, lids, deck, walls, etc.
4. Fill tank to mixing shaft.
5. Close inlet lids.
6. Agitate mixing paddles at high speed for several minutes, splashing water inside of tank.
7. Drain in approved location.
8. Repeat steps 4—7 as necessary.

A properly cleaned hydroseeding unit will remain free of any built-up product internally and externally.

9.0 Winter Care

In extreme cold it is imperative that engines and hydraulic systems are thoroughly warmed before introducing a load. Refer to the operations manual for your hydroseeding unit for proper winter usage and care. During cold weather periods, the hydroseeding unit tank and pump must be drained at the end of the day to avoid freezing. It is desirable, but not necessary, to bring the machinery into a heated building for overnight storage.

9.1 Applicator Winterizing Procedure

1. After cleanout, drain the mixing tank thoroughly. DO NOT REPLACE DRAIN CAP.
2. If your hydroseeding unit is equipped with a reserve water tank and/or pump, drain thoroughly. DO NOT REPLACE DRAIN CAPS.
3. Pour approximately one half gallon (1.9 L) of anti-freeze into pump or tank and slowly run through pump and lines to prevent freezing.

10.0 Materials Storage

All materials are inert and can be stored on or off the boundaries of lined landfill cells.

10.1 VERDac Pellets Material Storage

VERDac Pellets should be kept dry. Stretch wrapped pallets can be easily covered with a tarp or plastic as a secondary measure of protection.

10.2 Xtreme Rain Shield

Xtreme Rain Shield should be kept dry. Stretch wrapped pallets can be easily covered with a tarp or plastic as a secondary measure of protection. .

11.0 Troubleshooting

11.1 Removing Foreign Object from Discharge Nozzle

1. Immediately turn off pump.
2. If unit is equipped with pump reverse feature, reversing for a few seconds releases any potential pressure in lines. With nozzle pointing away, remove nozzle and clear obstruction.
3. Reconnect nozzle and continue spraying.

11.2 Removing Foreign Object from Mixing Tank

1. Shut off mixer, pump, and engine.
2. If object can be safely retrieved with extended gaff tool, remove and continue with operation. If object cannot be found, drain load in approved area, locate object, and safely remove with extended gaff tool.

11.3 Clearing Clogged Mixing Tank

1. In the unlikely event that the VERDac Pellets slurry has thickened in the mixing tank to the point that the mixer paddles will not turn, disengage mixer. Do not force mixer.
2. A strong stream of water applied to the surface of the material should begin to thin the slurry. Gently rocking the mixer should free up material and allow to mix back to normal consistency.

11.4 Lockout/Tagout & Confined Space Entry

1. The authorized employee must adhere to their own company's procedure for "Lockout/Tagout". He or she must understand the hazards and know how to control them.
2. If the equipment is operating, shut it down by normal stopping procedure (turn key switch off, depress emergency stop button, close valves, etc.) and remove the positive battery cable so that the machine or equipment is isolated from the battery.
3. Install tags on the battery cable lug and at the ignition control box with Date, Time, & Authorized Repair Employee's Name.
4. If repairing such items as springs, flywheels, hydraulic systems, air, gas or water pressure, etc…, stored or residual energy may be present and must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
5. Ensure that no other personnel are in the engine compartment or areas of isolation. Then verify the isolation of the equipment by operating the normal controls, testing to make certain the equipment will not operate.
6. Return all controls to "Neutral" or "OFF" after verifying the isolation of the equipment.
7. If entry into confined space is necessary, the authorized employee must adhere to their own company's procedure for "Confined Space Entry"

12.0 Contingency Soil Supply

In the event that you are unable to apply VERDac Pellets, the landfill operator should have a three-day supply of soil for daily cover material available on-site.

GHS Safety Data Sheet SDS

LSC Environmental Products, LLC
Issue Date: July 10, 2020

1 Identification

Supplier LSC Environmental Products, LLC
2183 Pennsylvania Ave
Apalachin, NY 13732
Telephone: 607-625-3050
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Product Name **VERDac Landfill Cover Pellets**
Description: Green Dyed Cellulose Fiber from Shredded Wastepaper and Corn Fiber and Sodium Montmorillonite Clay with Additives
CAS Number: N/A
Recommended Use: Alternative Daily Cover and Hydroseeding.

2 Hazards Identification

Route of Entry: Eye Contact, Skin Contact, Inhalation
Hazards:
- Eye: May cause mechanical irritation.
- Skin: May cause mild skin irritation.
- Ingestion: No known health effects.
- Inhalation: Acute: Short term exposure may cause mechanical irritation resulting in dry cough. May aggravate existing respiratory illness.
  Chronic: Repeated inhalation of respirable* crystalline silica above exposure limits can cause lung disease, including silicosis and lung cancer.

3 Composition / Information on Ingredients

Components in order of Volume:
Cellulose Fiber, Corn Fiber, Sodium Montmorillonite Clay* (Cas # 1318-93-0), Proprietary ingredients and biodegradable green coloring.

*Typical western SMC contains 1-6% crystalline silica as quartz CAS# 14808-60-7.

4 First-Aid Measures

Eye: Flush eyes and under eye lids with plenty of water until irritation ceases. Contact physician if irritation persists.
Skin: Wash with soap and water until clean. Contact physician if irritation develops.

Ingestion: None known.
Inhalation: Move to area free from dust. If symptoms of irritation persist, contact physician.

Inhalation may aggravate existing respiratory illness.

5 Fire Fighting Measures

Flammability:	Combustible product
Auto-ignition Temp:	400-500 F
Fire Extinguishing Media:	Water, Carbon Dioxide, Sand.

6 Accidental Release Measures

Personal Precaution:	Avoid breathing dust; wear respirator approved for silica bearing dust.
Cleanup:	Vacuum to avoid generating airborne dust. Avoid using water. Material becomes slippery when wet.

7 Handling and Storage

Handling:	Use NIOSH/MSHA respirators approved for silica bearing dust when airborne SMC dust levels exceed PEL/TLVs. Clean up spills promptly to avoid making dust. Storage area floors may become slippery if wetted.
Storage:	Store in a dry place. Keep away from ignition sources.

8 Exposure Controls / Personal Protection

Exposure Guidelines (Inhalation):

Component	OSHA PEL (8 hr TWA)	ACGIH TVL
Crystalline Silica as Quartz	0.1 mg/m^3	0.1 mg/m^3
Wood Dust	1 mg/m^3	1 mg/m^3
Particles Not Otherwise Regulated		
Total Dust	15 mg/m^3	N/A
Respirable Dust	5 mg/m^3	N/A

Engineering Controls:	None required for outdoor mixing and application. Use local ventilation to maintain PELs/TLVs if handling indoors.
Personal Protective Equipment:	
Eye and Face Protection:	Wear safety glasses or goggles during loading and application to protect from dust, splashing, and spray mist.
Skin Protection:	Wear gloves and overalls to protect skin and clothing from contact with product. Personal hygiene measures, such as washing hands and face after working with materials, are recommended.

Respiratory Protection: When handling generates dust levels above exposure limits, use respirators approved by NIOSH/MSHA for silica bearing dust.

9 Physical and Chemical Properties

Appearance:	Green Pellets
Odor:	N/A
Physical State:	Granular Mixture of Cellulose Fiber, Corn Fiber, Sodium Montmorillonite Clay, Proprietary Ingredients, Dye
pH:	5.5-7.0
Specific Density:	20-35#'s/ft^3 (approximate)
Specific Gravity:	N/A
Solubility in Water:	<2%
Vapor Pressure (mm Hg):	N/A

10 Stability and Reactivity

Stability:	Stable
Conditions to Avoid:	Avoid open flame. Store in dry areas.
Materials to Avoid:	N/A
Hazardous Polymerization:	No.

11 Toxicological Information

Carcinogenicity:

- Sodium Montmorillonite Clay is not listed by ACGIH, IARC, NTP, or OSHA.
- IARC, 1997, concludes that there is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica from occupational sources (IARC Class 1), that carcinogenicity was not detected in all industrial circumstances studied and that carcinogenicity may depend on characteristics of the crystalline silica or on external factors affecting its biological activity. NTP classifies respirable crystalline silica as "known to be a human carcinogen" (NTP 9th Report on Carcinogens - 2000). ACGIH classifies crystalline silica quartz as a suspected human carcinogen (A2).

12 Ecological Information

No information available.

13 Disposal Considerations

Bury in licensed landfill according to local, state, and federal regulations.

14 Transportation Information

US DOT: Non-regulated

15 Regulatory Information

None of the components in this product are known to be regulated by national or international regulatory bodies.

16 Other Information

SDS Status: Revised from MSDS format in 2015 to comply with GHS requirements.

All information presented herein is believed to be accurate; however, it is the user's responsibility to determine in advance of need that the information is current and suitable for their circumstances.
No warranty or guarantee, expressed or implied, is made by LSC Environmental Products, LLC as to this information or as to the safety, toxicity, or effect of the use of this product.