



**CORRESPONDENCE COVER SHEET
WASTE PERMITS DIVISION
TEXAS COMMISSION ON ENVIRONMENTAL QUALITY**

Date: 02/26/2021

Facility Name: NTMWD 121 Regional Disposal Facility

Permit or Registration No.: 2294

Nature of Correspondence:

Initial/New

Response/Revision*

*If Response/Revision, please provide previous TCEQ Tracking No.:

(Previous TCEQ Tracking No. can be found in the Subject line of the TCEQ's response letter to your original submittal.)

This cover sheet should accompany all correspondences submitted to the Waste Permits Division and should be affixed to the front of your submittal as a cover page. Please check the appropriate box for the type of correspondence being submitted. For questions regarding this form, please contact the Waste Permits Division at (512) 239-2335.

Table 1 - Municipal Solid Waste

APPLICATIONS	REPORTS and RESPONSES
<input type="checkbox"/> New Notification	<input type="checkbox"/> Closure Report
<input type="checkbox"/> New Permit (including Subchapter T)	<input type="checkbox"/> Groundwater Alternate SRC Demonstration
<input type="checkbox"/> New Registration (including Subchapter T)	<input type="checkbox"/> Groundwater Corrective Action
<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Groundwater Monitoring Report
<input type="checkbox"/> Minor Amendment	<input type="checkbox"/> Groundwater Statistical Evaluation
<input type="checkbox"/> Limited Scope Major Amendment	<input type="checkbox"/> Landfill Gas Corrective Action
<input checked="" type="checkbox"/> Notice Modification	<input type="checkbox"/> Landfill Gas Monitoring
<input type="checkbox"/> Non-Notice Modification	<input type="checkbox"/> Liner Evaluation Report
<input type="checkbox"/> Transfer/Name Change Modification	<input type="checkbox"/> Soil Boring Plan
<input type="checkbox"/> Temporary Authorization	<input type="checkbox"/> Special Waste Request
<input type="checkbox"/> Voluntary Revocation	<input type="checkbox"/> Other:
<input type="checkbox"/> Subchapter T Workplan	
<input type="checkbox"/> Other:	

Table 2 - Industrial & Hazardous Waste

APPLICATIONS	REPORTS and RESPONSES
<input type="checkbox"/> New	<input type="checkbox"/> Annual/Biennial Site Activity Report
<input type="checkbox"/> Renewal	<input type="checkbox"/> CfPT Plan/Result
<input type="checkbox"/> Post-Closure Order	<input type="checkbox"/> Closure Certification/Report
<input type="checkbox"/> Major Amendment	<input type="checkbox"/> Construction Certification/Report
<input type="checkbox"/> Minor Amendment	<input type="checkbox"/> CPT Plan/Result
<input type="checkbox"/> Class 3 Modification	<input type="checkbox"/> Extension Request
<input type="checkbox"/> Class 2 Modification	<input type="checkbox"/> Groundwater Monitoring Report
<input type="checkbox"/> Class 1 ED Modification	<input type="checkbox"/> Interim Status Change
<input type="checkbox"/> Class 1 Modification	<input type="checkbox"/> Interim Status Closure Plan
<input type="checkbox"/> Endorsement	<input type="checkbox"/> Soil Core Monitoring Report
<input type="checkbox"/> Temporary Authorization	<input type="checkbox"/> Treatability Study
<input type="checkbox"/> Voluntary Revocation	<input type="checkbox"/> Trial Burn Plan/Result
<input type="checkbox"/> 335.6 Notification	<input type="checkbox"/> Unsaturated Zone Monitoring Report
<input type="checkbox"/> Other:	<input type="checkbox"/> Waste Minimization Report
	<input type="checkbox"/> Other:



Regional. Reliable. Everyday.

February 26, 2021

Chance Goodin
Manager, Municipal Solid Waste Section
MC-124
Texas Commission on Environmental Quality
P.O. Box 13087
Austin, Texas 78711-3087

Re: NTMWD 121 Regional Disposal Facility, Collin County, Texas; TCEQ Permit No. MSW 2294; Alternate Daily Cover Permanent Use Permit Modification Request; RN: 101308781; CN: 601365448

Dear Mr. Goodin:

Enclosed is a permit modification request for the NTMWD 121 Regional Disposal Facility (121 RDF), TCEQ Permit No. MSW 2294. This permit modification request has been prepared consistent with Title 30 of the Texas Administrative Code (TAC) 305.70(k)(1). The proposed permit modification request includes a revision to the Site Operating Plan for the use of an alternative daily cover material on a permanent basis. A permit modification narrative is included in this submittal. We believe the enclosed modification request to be consistent with the requirements of the Texas Commission on Environmental Quality.

One original and two copies of the permit modification request are provided for your review. A copy of the modification has been sent to the TCEQ Region 4 Office. A copy of this submittal was placed in the site operating record for this facility. If you have any questions or comments, please do not hesitate to contact Mr. Tony Wescoup with Biggs & Mathews Environmental at (817) 563-1144 or Mr. Mike Friesen with NTMWD at (469) 626-4339.

Sincerely,

A handwritten signature in blue ink, appearing to read "JEFFREY D. MAYFIELD".

JEFFREY D. MAYFIELD
Assistant Deputy - Solid Waste

Attachment: Permit Modification Request – one original and two copies

cc: Ms. Erin Gorman – TCEQ Region 4
NTMWD Central File - 121 RDF 9.0
121 RDF Site Operating Record 9.0
Mr. Jeffrey Reed – Lloyd Gosselink Rochelle & Townsend, P.C.

**121 REGIONAL DISPOSAL FACILITY
TCEQ PERMIT NO. MSW 2294
COLLIN COUNTY, TEXAS**

PERMIT MODIFICATION

**ALTERNATIVE DAILY COVER OPERATING PLAN FOR
SPRAY-ON MATERIALS**

Prepared for



North Texas Municipal Water District

February 2021



Prepared by

BIGGS & MATHEWS ENVIRONMENTAL
1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION NO. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222

**121 REGIONAL DISPOSAL FACILITY
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2294**

PERMIT MODIFICATION

**ALTERNATIVE DAILY COVER OPERATING PLAN FOR
SPRAY-ON MATERIALS**

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Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

Facility Name: NTMWD 121 Regional Disposal Facility
Permittee/Registrant Name: North Texas Municipal Water District
MSW Authorization #: 2294
Initial Submittal Date: 2/26/2021
Revision Date:



Texas Commission on Environmental Quality

Permit/Registration Modification and Temporary Authorization Application Form for an MSW Facility

1. Reason for Submittal

Initial Submittal 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/Transfer

4. Application Fees

Pay by Check Online Payment

If paid online, e-Pay Confirmation Number: **582EA000423213**

5. Application URL

Is the application submitted for a permit/registration modification with public notice?

Yes No

If the answer is "Yes", enter the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted in the space provided: <http://>

<https://www.ntmwd.com/projects/121-regional-disposal-facility/>

6. Confidential Documents

Does the application contain confidential documents?

Yes No

If "Yes", cross-reference the confidential documents throughout the application and submit as a separate attachment in a binder clearly marked "CONFIDENTIAL."

7. General Facility Information

Facility Name: **NTMWD 121 Regional Disposal Facility**

MSW Authorization No.: **2294**

Regulated Entity Reference No.: **101308781**

Physical or Street Address (if available): **3820 Sam Rayburn Hwy**

City: **Melissa** County: **Collin** State: **TX** Zip Code: **75454**

(Area code) Telephone Number: **972-442-5405**

Latitude: **N33° 17' 26.74556"** Longitude: **W96° 30' 51.22736"**

8. Facility Type(s)

Type I

Type IV

Type V

Type I AE

Type IV AE

Type VI

9. Description of the Revisions to the Facility

Provide a brief description of all revisions to the permit/registration conditions and supporting documents referred by the permit/registration, and a reference to the specific provisions under which the modification/temporary authorization application is being made. Also, provide an explanation of why the modification/temporary authorization is requested: **A permit modification request prepared consistent with 30 TAC §305.70(k)(1) to include a revision to the Site Operating Plan for the use of an alternate daily cover material on a permanent basis.**

This section is intentionally left blank; please continue to the next page.

11. Ownership Status of the Facility

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

Yes No

If the answer is "No", skip this section.

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

Yes No

If "No", provide the information requested below for any additional ownership.

Owner Name:

Street or P.O. Box:

City: County: State: Zip Code:

(Area Code) Telephone Number:

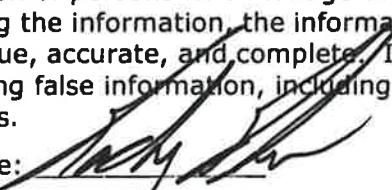
Email Address (optional):

Charter Number:

Signature Page

I, Rodney Rhoades, Interim Executive Director,
(Site Operator (Permittee/Registrant)'s Authorized Signatory) (Title)

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.

Signature: 

Date: 2.26.2021

TO BE COMPLETED BY THE OPERATOR IF THE APPLICATION IS SIGNED BY AN AUTHORIZED REPRESENTATIVE FOR THE OPERATOR

I, _____, hereby designate _____
(Print or Type Operator Name) (Print or Type Representative Name)

as my representative and hereby authorize said representative to sign 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.

Printed or Typed Name of Operator or Principal Executive Officer

Signature

SUBSCRIBED AND SWORN to before me by the said Rodney Rhoades

On this 26th day of Feb., 2021

My commission expires on the 25th day of Apr., 2023

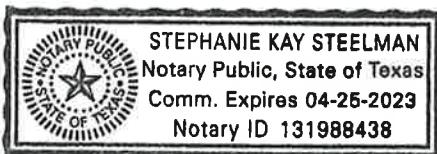
Stephanie Kay Steelman

Notary Public in and for

Collin

County, Texas

(Note: Application Must Bear Signature & Seal of Notary Public)



Permit/Registration Modification with Public Notice

(See Instructions for P.E. seal requirements.)

Required Attachments

	Attachment No.
Land Ownership Map	1
Land Ownership List	1
Marked (Redline/Strikeout) Pages	2
Unmarked Revised Pages	3

Additional Attachments as Applicable- Select all those apply and add as necessary

- Signatory Authority
- Fee Payment Receipt
- Confidential Documents

PERMIT MODIFICATION NARRATIVE

Introduction

The purpose of this permit modification request is for use of a spray-on material alternative daily cover on a permanent basis. This permit modification request has been prepared consistent with the applicable provisions of 30 Texas Administrative Code (TAC) §305.70(k)(1) for permit modifications that are *“minor changes to an MSW facility or its operation that do not substantially alter the permit or registration conditions and do not reduce the capability of the facility to protect human health and the environment.”* The proposed permit modification request for the North Texas Municipal Water District (NTMWD) 121 Regional Disposal Facility (121 RDF) meets this definition.

The following section identifies each permit modification requirement, and states how the proposed revisions meet the specific permit modification requirements:

Proposed Permit Modification

The proposed permit modification requirements established in 30 TAC §305.70(k) are included in this submittal below. The specific permit modification rule is stated in the following narrative in *“italics”* with the proposed revision justification stated.

30 TAC §305.70(k)(1) – *the use of an alternate daily cover material on a permanent basis in accordance with §330.165(d) of this title (relating to Landfill Cover);*

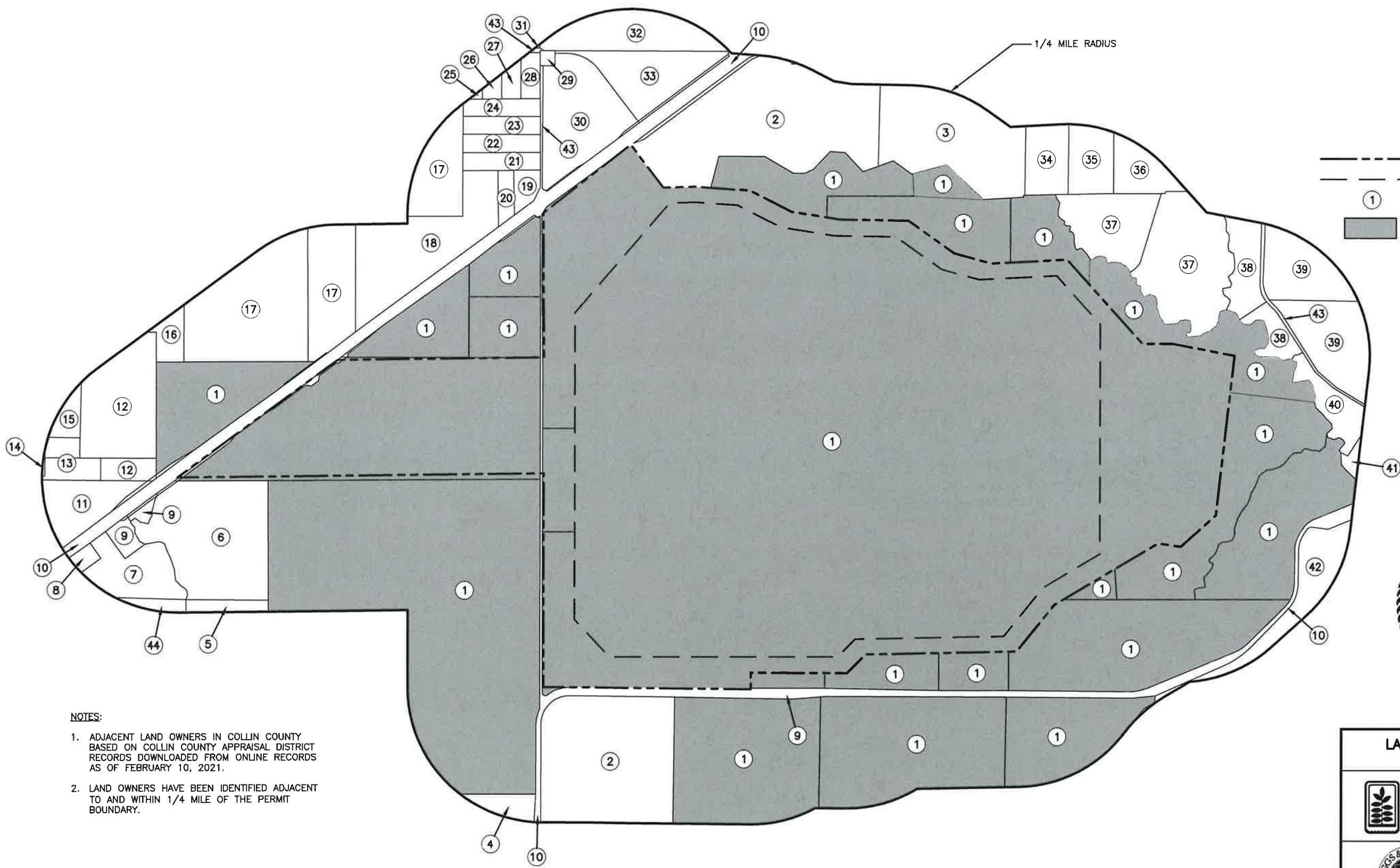
This permit modification is submitted as a redline/strikeout copy to the Site Operating Plan. This proposed revision to the Site Operating Plan reflects an update to the alternative daily cover section and additional appendix for the use of an alternative daily cover on a permanent basis.

The NTMWD 121 RDF was authorized for the use of Posi-Shell Base Mix as alternative daily cover as a temporary authorization on November 27, 2019. An extension of the temporary authorization was issued on June 17, 2020. These materials were used at the 121 RDF and demonstrated their effectiveness as alternative daily cover. Reports were provided to TCEQ describing their performance throughout the temporary authorization.

This permit modification includes only the pages within the Site Operating Plan that are revised with this permit modification.

ATTACHMENT 1

LAND OWNERSHIP MAP AND LAND OWNERSHIP LIST



ISSUED FOR PERMITTING PURPOSES ONLY

REVISIONS		TBPE FIRM NO. F-256		TBPG FIRM NO. 50222	
DSN	FAW	DATE	02/21	DRAWING	1
DWN	SRC	SCALE	GRAPHIC		
CHK	FAW	DWG	AdjacentOwners_2-10-21.dwg		
REV	DATE	DESCRIPTION	DWN BY DES BY CHK BY APP BY		



**LANDOWNERS MAP & LIST
1/4 MILE RADIUS**

**NORTH TEXAS MUNICIPAL
WATER DISTRICT
121 RDF
ADC PERMIT MODIFICATION**

**BIGGS & MATHEWS
ENVIRONMENTAL
CONSULTING ENGINEERS
MANSFIELD • WICHITA FALLS
817-563-1144**



1 NORTH TEXAS MUNICIPAL WATER DISTRICT
P O BOX 2408
WYLIE TX 75094-2408

2 EXPLORER PIPELINE COMPANY
P O BOX 2650
TULSA OK 74101-2650

3 MELISSA INDEPENDENT SCHOOL DISTRICT
1904 COOPER ST
MELISSA TX 75454-9555

4 CITY OF MELISSA
3411 BARKER AVE
MELISSA TX 75454-9569

5 MILRANY FAMILY L.P.
P O BOX 638
MELISSA TX 75454-0638

6 JANOW PROPERTIES LLC
P O BOX 175
McKINNEY, TX 75070-8133

7 MCKINNEY LUMBER COMPANY LLC
3510 SAM RAYBURN HWY
MELISSA TX 75454-2665

8 HJR INVESTMENTS LTD
P O BOX 190
MELISSA TX 75454-0190

9 EST PROPERTIES LLC
615 N HUDSON AVE STE 300
OKLAHOMA CITY OK 73102-3091

10 STATE OF TEXAS
ATTN: RIGHT OF WAY SECTION
P O BOX 133067
DALLAS TX 75313-3067

11 MELISSA BROOKSIDE HOMEOWNERS' ASSN INC
1050 E STATE HIGHWAY 114 STE 210
SOUTHLAKE TX 76092-5255

12 GAUS DWAIN D & CAROLINE
3840 CAROL D LANE
MELISSA TX 75454-2590

13 AMERITK GROUP LLC
P O BOX 490
McKINNEY TX 75070-8138

14 HOWARD CHARLES T ETAL
P O BOX 112
MELISSA TX 75454-0112

15 HIBBARD LELAND J JR
3639 KARNAGHAN LN
MELISSA TX 75454-2682

16 WICKERSHAM JOSHUA J & SHELLY M
3902 SHERLEY LN
MELISSA TX 75454-8920

17 HARLAN PROPERTIES INC
2404 TEXAS DR STE 103
IRVING TX 75062-7011

18 KHAMASH FAYEZ AHMED & QATTAN HUSSEIN A
7008 MARBLE CANYON DR
PLANO TX 75074-8948

19 SMITH RAYMOND J & MAGIC
8533 COUNTY ROAD 419
ANNA TX 75409-8230

20 ROBERTS KYLE LYNN & JENNIFER BROOKE
P O BOX 673
MELISSA TX 75454-0673

21 RAINES JAMES JAY & MARTHA
8563 COUNTY ROAD 419
ANNA TX 75409-8230

22 BARBOSA ROBERTO
8583 COUNTY ROAD 419
ANNA TX 75409-8230

23 DONAHUE MICHAEL E
8607 COUNTY ROAD 419
ANNA TX 75409-8232

24 CHRISTIANSEN ROBER L ETAL
8645 COUNTY ROAD 419
ANNA TX 75409-8232

25 HOLDEN MARY J
13100 BARBAROSA DR
FRISCO TX 75035-6479

26 FAIN DUSTIN MARSHALL
3632 COUNTY ROAD 417
ANNA TX 75409-8228

27 GEIS WILLIAM & VIRGINIA
3656 COUNTY ROAD 417
ANNA TX 75409-8219

28 ELLIS THOMAS DYLAN
8719 COUNTY ROAD 419
ANNA TX 75409-8219

29 NORTH COLLIN SPECIAL UTILITY DISTRICT
2333 SAM RAYBURN HWY
P O BOX 343
MELISSA TX 75454-0343

30 MANSOOR SHAHID
6229 WINDY OAKS
ALEXANDRIA, LA 71301-2857

31 BARAKAH TEXAS PROPERTIES LLC
6229 WINDY OAKS
ALEXANDRIA LA 71301-2857

32 ROLLINS JAMES D JR & QUINCY SHERLEY-
QJR PARTNERSHIP LTD
9262 COUNTY ROAD 419
ANA TX 75409-8205

33 SKY TREASURES RANCH LCC
3225 TURTLE CREEK BLVD APT 708B
DALLAS TX 75219-5463

34 REID NANCY M & BYRON T STEWART
3706 GUTHRIE RD
GARLAND TX 75043-6221

35 STEWART BYRON T
4030 COCHISE DR
BALCH SPRINGS TX 75180-2562

36 CLARK SUSAN ANN & JEANA K CUNNINGHAM
602 TANBARK CT
COPPELL TX 75019-2200

37 STEWART JOHN ROBERT & DEBY M
11201 PATTI LN
BALCH SPRINGS TX 75180-2009

38 ROPER AMON BURL
107 COUNTY ROAD 915
ANNA TX 75409-4411

39 FULLER ALBERT M
P O BOX 547
BLUE RIDGE TX 75424-0547

40 LASHLEY JULIA C
8543 COUNTY ROAD 472
ANNA TX 75409-8445

41 AIRHART ROBERT & SANDRA
8441 COUNTY ROAD 472
ANNA TX 75409-8447

42 CHAMBLISS LAND LLC
1340 S MAIN ST STE 300
GRAPEVINE TX 76051-7512

43 COUNTY OF COLLIN
825 N McDONALD ST STE 143
McKINNEY TX 75069-2178

44 HINES MILRANY RANCH LLC
C/O HINES INTERESTS LMTD PARNERSHIP
2200 ROSS AVE STE 4200W
DALLAS TX 75021-2763

ATTACHMENT 2

MARKED (REDLINE/STRIKEOUT) PAGES

PART IV

SITE OPERATING PLAN

121 REGIONAL DISPOSAL FACILITY

PERMIT NO. MSW-2294

NORTH TEXAS MUNICIPAL WATER DISTRICT

COLLIN COUNTY, TEXAS

Prepared by Pierce L. Chandler, Jr., P. E.

Permit Issued

January 8, 2004

Revision 17
February 2021



Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

**NORTH TEXAS MUNICIPAL WATER DISTRICT
121 REGIONAL DISPOSAL FACILITY
PART IV
SITE OPERATING PLAN**



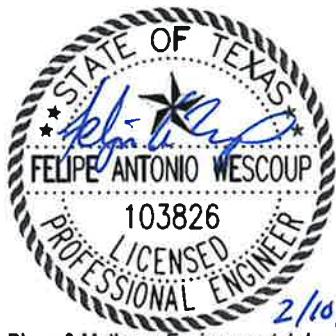
Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

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**NORTH TEXAS MUNICIPAL WATER DISTRICT
121 REGIONAL DISPOSAL FACILITY
PART IV
SITE OPERATING PLAN**

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Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

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NORTH TEXAS MUNICIPAL WATER DISTRICT
121 REGIONAL DISPOSAL FACILITY
PART IV
SITE OPERATING PLAN

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**NORTH TEXAS MUNICIPAL WATER DISTRICT
121 REGIONAL DISPOSAL FACILITY
PART IV**

23.0 PLACEMENT, COMPACTION, AND COVER OF WASTE

Solid waste will be spread and compacted evenly by a minimum of three passes of the landfill compactor. Dozers will not be used for landfill compaction. Each layer of waste will be thoroughly compacted to a thickness of approximately two feet.

A daily cover of six inches of well-compacted earthen material not previously mixed with garbage, rubbish, or other solid waste will be spread over all exposed and compacted solid waste disposal areas at the end of each day's operations, as detailed in Section 6.0 of this Part.

Depending on the solid waste stream received at the 121 RDF site and other operational considerations, ~~the~~ alternate daily cover (ADC) ~~described below~~ may be used. Such ADC may be used in conjunction with or as a substitute for six inches of well-compacted soil. Use of ADC should enhance odor control, leachate recirculation, and/or landfill gas recovery.

No tarps or other such materials may be used unless they are left in place and covered daily with new wastes and new cover. ADC that is documented to be as effective as or more effective than on site soils in controlling odors, vectors, windblown wastes, and fires may be used if authorized by TCEQ. Documentation of the use and results of the ADC shall be maintained, and if the ADC does not prove as effective as on-site soils, the use of ADC will be discontinued.

Before ADC is used at the 121 RDF site, a permit modification containing specific operating procedures for using ADC will be submitted to the Executive Director of TCEQ for review and approval. The ADC operating plan will include:

NORTH TEXAS MUNICIPAL WATER DISTRICT

121 REGIONAL DISPOSAL FACILITY

PART IV

1. A description of the type and thickness of ADC to be used.
2. Operational methods for applying the ADC.
3. As appropriate, depending on the type of ADC used, information on chemical composition of the ADC, such as Material Safety Data Sheets (MSDSs).
4. Other pertinent information on the characteristics, features, or other factors related to use of the ADC.
5. An evaluation of the effect of ADC use on vector, fire, odor, and windblown litter control.

Permanently authorized ADC is described in Appendix IV-C.

As each landfill cell reaches a final grade, a minimum of twelve inches of cover (consisting of on-site soils) will be placed over the waste as intermediate cover and compacted in order to establish a firm base for final cover placement. Areas of waste placement and daily cover that have not achieved final grade and which will be inactive for longer than 180 days will be provided with an additional six inches of compacted cover material, for a total intermediate cover thickness of at least 12 inches. Intermediate cover will consist of well-compacted earthen material not previously mixed with garbage, rubbish, or other solid waste. All intermediate cover will be graded to prevent ponding of water. The top six inches of intermediate cover will be capable of sustaining native plant growth and will be seeded or sodded following intermediate cover application to control erosion. Alternatively, other erosion control measures may be approved by the Executive Director of TCEQ. Plant growth or other erosion control measures will be maintained to minimize erosion of intermediate cover.

A cover application log will be maintained on-site. The cover application log will be available for inspection by TCEQ representatives. This log shall specify the date cover

**NORTH TEXAS MUNICIPAL WATER DISTRICT
121 REGIONAL DISPOSAL FACILITY
COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2294**

PART IV – SITE OPERATING PLAN

**APPENDIX IV-C
ALTERNATE DAILY COVER OPERATING PLAN**

Prepared for

North Texas Municipal Water District

February 2021



Prepared by

BIGGS & MATHEWS ENVIRONMENTAL
1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION No. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION No. 50222



2/10/2021

Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

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APPENDIX IV-C-A

Alternate Daily Cover – Posi-Shell Base Mix

1 INTRODUCTION

This Alternate Daily Cover Operating Plan (ADCOP) has been prepared for the North Texas Municipal Water District (NTMWD) 121 Regional Disposal Facility (121 RDF) consistent with §330.165(d)(4)-(5). The purpose of this ADCOP is to address the following issues:

1. Description and thickness of each ADC material
2. Chemical composition of the material and the SDS(s) for the ADC (if applicable)
3. Operation methods to be utilized at the site when using the ADC
4. Other pertinent information
5. Effect of the ADC on vectors, fires, odors, and windblown litter

As specified in Part IV, SOP, Section 23.0 – Placement, Compaction, and Cover of Waste, ADC may be used to cover exposed waste except when the landfill is to be closed for a period of greater than 24 hours (unless otherwise approved by TCEQ). Refer to Appendix IV-C-A for the material information for Posi-Shell Base Mix.

2 MATERIAL CHARACTERISTICS

2.1 Description of ADC Materials

The following type of ADC material may be used at the 121 RDF.

- Posi-Shell Base Mix – Posi-Shell Base Mix (Posi-Shell) is a blend of clay binders, fibers and polymers manufactured by LSC Environmental Products, LLC. The material specification sheet is provided in Appendix IV-C-A. The product is deployed as a hydromulch by a hydroseeder.

2.2 Chemical Characteristics

The chemical characteristics of the Posi-Shell Base Mix are found in Appendix IV-C-A.

In accordance with §330.165(d)(5), this ADC does not exceed constituent limitations imposed on waste authorized to be disposed of at the 121 RDF.

2.3 Effectiveness

In accordance with §330.165(d)(1)(B), the ADC material to be used at the 121 RDF have proven to be effective on vectors, fires, odors, and windblown litter and waste. The materials identified for use as ADC materials have been used at the facility.

3 OPERATIONAL METHODS

This section discusses the operational procedures that will be used to employ the proposed ADC material. For each type of ADC, landfill personnel will verify that the waste fill area has been covered with the minimum required thickness at the completion of each working day.

Posi-Shell material will be deployed as follows:

- The Posi-Shell material will be prepared as specified by the manufacturer.
- The slurry will be sprayed over the active working face by a hydroseeder.
- The slurry will be applied at a thickness so that no waste is visible following its application.
- The slurry will be applied from at least two directions and will achieve a minimum of 0.25 inches over the exposed waste.

4 OTHER PERTINENT INFORMATION

There is no other pertinent information on the characteristics, features, or other factors related to the use of this ADC.

5 ADC VERIFICATION AND INSPECTION PROCEDURES

At the end of each working day, landfill personnel will inspect the working face to verify that the minimum thickness the ADC has been placed over the exposed wastes in accordance with this ADCOP. Landfill personnel will routinely assess the effectiveness of each ADC in controlling vectors, fires, odors, and windblown waste. Daily application of ADC will be documented and maintained in the site operating record.

In the event that the ADC does not control vectors, fires, odors, or windblown waste, the ADC application process will be re-evaluated to ensure that the ADC materials adequately cover the working face and serve their intended purpose. Any required changes to the ADC operational procedures will be documented in the site operating record.

NORTH TEXAS MUNICIPAL WATER DISTRICT

121 RDF

APPENDIX IV-C-A

ALTERNATIVE DAILY COVER – POSI-SHELL BASE MIX



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GHS Safety Data Sheet

SDS

LSC Environmental Products, LLC
Issue Date: June 15, 2015

Posi-Shell® Base Mix

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1

Identification

Supplier	LSC Environmental Products, LLC 2183 Pennsylvania Ave Apalachin, NY 13732
Telephone:	607-625-3050
Fax:	607-625-2688
Web:	www.lscenv.com
Product Name	Posi-Shell® Base Mix
Description:	Sodium Montmorillonite Clay (SMC) with Synthetic Fibers and Coloring
CAS Number:	N/A
Recommended Use:	Spray Applied Environmental Coatings.

2

Hazards Identification

Route of Entry:	Eye Contact, Skin Contact, Inhalation
Hazards:	
Eye:	May cause mechanical irritation.
Skin:	May cause drying resulting in dermatitis.
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.
NFPA:	Not regulated, Non-hazardous

3

Composition / Information on Ingredients

Component	CAS#	Amount
Sodium Montmorillonite Clay (SMC)*	N/A	> 90%

*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.



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5 Fire Fighting Measures

Flammability: Non-flammable

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.

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
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: Off-white dry powder. Small quantity of brown powder and fine white fibers also present in package.



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Odor:	Not Determined
pH:	8-10 (5% aqueous suspension)
Relative Density (H ₂ O=1):	2.45-2.55
Bulk Density (at 20° C):	55 lbs/cu ft as dry product
Melting Point:	Approx. 1450° C
Solubility in Water:	<2% soluble by weight.
Flammability:	Non-flammable

10 Stability and Reactivity

Stability:	Stable
Hazardous Decomposition Products:	None under normal handling conditions.
Hazardous Polymerization:	Will not occur.
Incompatible Materials:	Hydrofluoric Acid.

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.



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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.

ATTACHMENT 3
UNMARKED REVISED PAGES

PART IV

SITE OPERATING PLAN

121 REGIONAL DISPOSAL FACILITY

PERMIT NO. MSW-2294

NORTH TEXAS MUNICIPAL WATER DISTRICT

COLLIN COUNTY, TEXAS

Prepared by Pierce L. Chandler, Jr., P. E.

Permit Issued

January 8, 2004

Revision 17
February 2021



**NORTH TEXAS MUNICIPAL WATER DISTRICT
121 REGIONAL DISPOSAL FACILITY
PART IV
SITE OPERATING PLAN**

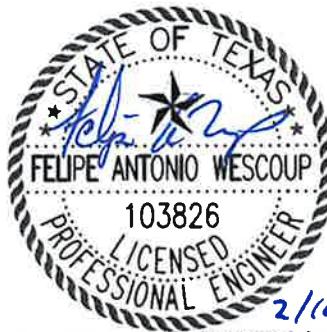


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23.0 PLACEMENT, COMPACTION, AND COVER OF WASTE

Solid waste will be spread and compacted evenly by a minimum of three passes of the landfill compactor. Dozers will not be used for landfill compaction. Each layer of waste will be thoroughly compacted to a thickness of approximately two feet.

A daily cover of six inches of well-compacted earthen material not previously mixed with garbage, rubbish, or other solid waste will be spread over all exposed and compacted solid waste disposal areas at the end of each day's operations, as detailed in Section 6.0 of this Part.

Depending on the solid waste stream received at the 121 RDF site and other operational considerations, alternate daily cover (ADC) may be used. Such ADC may be used in conjunction with or as a substitute for six inches of well-compacted soil. Use of ADC should enhance odor control, leachate recirculation, and/or landfill gas recovery.

No tarps or other such materials may be used unless they are left in place and covered daily with new wastes and new cover. ADC that is documented to be as effective as or more effective than on site soils in controlling odors, vectors, windblown wastes, and fires may be used if authorized by TCEQ. Documentation of the use and results of the ADC shall be maintained, and if the ADC does not prove as effective as on-site soils, the use of ADC will be discontinued.

Before ADC is used at the 121 RDF site, a permit modification containing specific operating procedures for using ADC will be submitted to the Executive Director of TCEQ for review and approval. The ADC operating plan will include:

NORTH TEXAS MUNICIPAL WATER DISTRICT

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1. A description of the type and thickness of ADC to be used.
2. Operational methods for applying the ADC.
3. As appropriate, depending on the type of ADC used, information on chemical composition of the ADC, such as Material Safety Data Sheets (MSDSs).
4. Other pertinent information on the characteristics, features, or other factors related to use of the ADC.
5. An evaluation of the effect of ADC use on vector, fire, odor, and windblown litter control.

Permanently authorized ADC is described in Appendix IV-C.

As each landfill cell reaches a final grade, a minimum of twelve inches of cover (consisting of on-site soils) will be placed over the waste as intermediate cover and compacted in order to establish a firm base for final cover placement. Areas of waste placement and daily cover that have not achieved final grade and which will be inactive for longer than 180 days will be provided with an additional six inches of compacted cover material, for a total intermediate cover thickness of at least 12 inches. Intermediate cover will consist of well-compacted earthen material not previously mixed with garbage, rubbish, or other solid waste. All intermediate cover will be graded to prevent ponding of water. The top six inches of intermediate cover will be capable of sustaining native plant growth and will be seeded or sodded following intermediate cover application to control erosion. Alternatively, other erosion control measures may be approved by the Executive Director of TCEQ. Plant growth or other erosion control measures will be maintained to minimize erosion of intermediate cover.

A cover application log will be maintained on-site. The cover application log will be available for inspection by TCEQ representatives. This log shall specify the date cover

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COLLIN COUNTY, TEXAS
TCEQ PERMIT NO. MSW 2294**

PART IV – SITE OPERATING PLAN

**APPENDIX IV-C
ALTERNATE DAILY COVER OPERATING PLAN**

Prepared for

North Texas Municipal Water District

February 2021



Prepared by

**BIGGS & MATHEWS ENVIRONMENTAL
1700 Robert Road, Suite 100 • Mansfield, Texas 76063 • 817-563-1144**

TEXAS BOARD OF PROFESSIONAL ENGINEERS
FIRM REGISTRATION NO. F-256

TEXAS BOARD OF PROFESSIONAL GEOSCIENTISTS
FIRM REGISTRATION NO. 50222



Biggs & Mathews Environmental, Inc.
Firm Registration No. F-256

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APPENDIX IV-C-A

Alternate Daily Cover – Posi-Shell Base Mix

1 INTRODUCTION

This Alternate Daily Cover Operating Plan (ADCOP) has been prepared for the North Texas Municipal Water District (NTMWD) 121 Regional Disposal Facility (121 RDF) consistent with §330.165(d)(4)-(5). The purpose of this ADCOP is to address the following issues:

1. Description and thickness of each ADC material
2. Chemical composition of the material and the SDS(s) for the ADC (if applicable)
3. Operation methods to be utilized at the site when using the ADC
4. Other pertinent information
5. Effect of the ADC on vectors, fires, odors, and windblown litter

As specified in Part IV, SOP, Section 23.0 – Placement, Compaction, and Cover of Waste, ADC may be used to cover exposed waste except when the landfill is to be closed for a period of greater than 24 hours (unless otherwise approved by TCEQ). Refer to Appendix IV-C-A for the material information for Posi-Shell Base Mix.

2 MATERIAL CHARACTERISTICS

2.1 Description of ADC Materials

The following type of ADC material may be used at the 121 RDF.

- Posi-Shell Base Mix – Posi-Shell Base Mix (Posi-Shell) is a blend of clay binders, fibers and polymers manufactured by LSC Environmental Products, LLC. The material specification sheet is provided in Appendix IV-C-A. The product is deployed as a hydromulch by a hydroseeder.

2.2 Chemical Characteristics

The chemical characteristics of the Posi-Shell Base Mix are found in Appendix IV-C-A.

In accordance with §330.165(d)(5), this ADC does not exceed constituent limitations imposed on waste authorized to be disposed of at the 121 RDF.

2.3 Effectiveness

In accordance with §330.165(d)(1)(B), the ADC material to be used at the 121 RDF have proven to be effective on vectors, fires, odors, and windblown litter and waste. The materials identified for use as ADC materials have been used at the facility.

3 OPERATIONAL METHODS

This section discusses the operational procedures that will be used to employ the proposed ADC material. For each type of ADC, landfill personnel will verify that the waste fill area has been covered with the minimum required thickness at the completion of each working day.

Posi-Shell material will be deployed as follows:

- The Posi-Shell material will be prepared as specified by the manufacturer.
- The slurry will be sprayed over the active working face by a hydroseeder.
- The slurry will be applied at a thickness so that no waste is visible following its application.
- The slurry will be applied from at least two directions and will achieve a minimum of 0.25 inches over the exposed waste.

4 OTHER PERTINENT INFORMATION

There is no other pertinent information on the characteristics, features, or other factors related to the use of this ADC.

5 ADC VERIFICATION AND INSPECTION PROCEDURES

At the end of each working day, landfill personnel will inspect the working face to verify that the minimum thickness the ADC has been placed over the exposed wastes in accordance with this ADCOP. Landfill personnel will routinely assess the effectiveness of each ADC in controlling vectors, fires, odors, and windblown waste. Daily application of ADC will be documented and maintained in the site operating record.

In the event that the ADC does not control vectors, fires, odors, or windblown waste, the ADC application process will be re-evaluated to ensure that the ADC materials adequately cover the working face and serve their intended purpose. Any required changes to the ADC operational procedures will be documented in the site operating record.

NORTH TEXAS MUNICIPAL WATER DISTRICT

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APPENDIX IV-C-A

ALTERNATIVE DAILY COVER – POSI-SHELL BASE MIX



GHS Safety Data Sheet

SDS

LSC Environmental Products, LLC
Issue Date: June 15, 2015

Posi-Shell® Base Mix

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1 Identification

Supplier	LSC Environmental Products, LLC 2183 Pennsylvania Ave Apalachin, NY 13732
Telephone:	607-625-3050
Fax:	607-625-2688
Web:	www.lscenv.com
Product Name	Posi-Shell® Base Mix
Description:	Sodium Montmorillonite Clay (SMC) with Synthetic Fibers and Coloring
CAS Number:	N/A
Recommended Use:	Spray Applied Environmental Coatings.

2 Hazards Identification

Route of Entry:	Eye Contact, Skin Contact, Inhalation
Hazards:	
Eye:	May cause mechanical irritation.
Skin:	May cause drying resulting in dermatitis.
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.
NFPA:	Not regulated, Non-hazardous

3 Composition / Information on Ingredients

Component	CAS#	Amount
Sodium Montmorillonite Clay (SMC)*	N/A	> 90%

*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.



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LSC Environmental Products, LLC
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Posi-Shell® Base Mix

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5 Fire Fighting Measures

Flammability: Non-flammable

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.

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
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: Off-white dry powder. Small quantity of brown powder and fine white fibers also present in package.



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Issue Date: June 15, 2015

Posi-Shell® Base Mix

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Odor:	Not Determined
pH:	8-10 (5% aqueous suspension)
Relative Density (H ₂ O=1):	2.45-2.55
Bulk Density (at 20° C):	55 lbs/cu ft as dry product
Melting Point:	Approx. 1450° C
Solubility in Water:	<2% soluble by weight.
Flammability:	Non-flammable

10 Stability and Reactivity

Stability:	Stable
Hazardous Decomposition Products:	None under normal handling conditions.
Hazardous Polymerization:	Will not occur.
Incompatible Materials:	Hydrofluoric Acid.

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.



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Posi-Shell® Base Mix

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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.