DEPARTMENT OF THE ARMY
US ARMY INSTALLATION MANAGEMENT COMMAND
HEADQUARTERS, UNITED STATES ARMY GARRISON, FORT BLISS
1741 MARSHALL ROAD
FORT BLISS, TEXAS 79916

AUG 2 9 2018

Directorate of Public Works

Mr. Mark Stewart
Waste Permits Division
Municipal Solid Waste Permits Section-MC 124
Texas Commission on Environmental Quality
13200 Park 35 Circle
Austin, Texas 78711-3087

Dear Mr. Stewart,

The Directorate of Public Works (DPW) is submitting the Municipal Solid Waste Registration No. 40295 (RN100210095/CN600126262) application response to comments for items identified in the First Technical Notice of Deficiency letter (Tracking No. 22713712, 22844307) dated July 2, 2018 (enclosed). All application revisions are highlighted in yellow and use the following editorial standards: Added text is indicated by underline, deleted text is indicated by strikethrough and moved text is highlighted.

As required, three copies of the revised application pages are enclosed and the revised application posted to the website at the following URL: https://www.bliss.army.mil/DPW/Environmental/EISDocuments2.html.

The point of contact for questions is Mr. Jesus D. Moncada, Chief, Compliance Branch, Environmental Division, DPW, at (915) 568-2632 or email: jesus.d.moncada.civ@mail.mil.

Sincerely,

Alfredo J. Riera, P.E.
Director of Public Works

Enclosures

First Technical Notice of Deficiency - Responses to Items of Concern

GENERAL & PART I.

1. Revise the application to change the ID No. from 42038 to 40295. Per teleconference with TCEQ on 7/25/18, leave it as is.

2. Remove the references to 30 TAC Chapter 332 since the application is submitted under 30 TAC Chapter 330 rules. Per teleconference with TCEQ on 7/25/18, leave it as is.

3. Include a description of the location of the facility and identify landmarks: include approximate distance and bearing to the landmark, per 30 TAC §330.59(b)(1). El Paso International Airport (ELP) terminal is listed as a landmark (see Part I, Section 1.1, Page 3).

4. Provide a general location map prepared by TxDOT, in accordance with 30 TAC §330.59(c)(2) (see Part I, Figure I.5; Part I, Section 1.1, Page 3; and Part I, Section 2.0, Page 5).

PART II

5. In accordance with 30 TAC §330.61(b) include in the waste acceptance plan (Section 2.0) the offsite sampling and analytical procedures to identify and prevent regulated hazardous waste from entering the facility. Sampling and analytical procedures and a discussion of hazardous waste are provided and are consistent with the response to question 20 (see Part II, Section 2.1, pp. 6-7; Part III, Section 2.2, pp. 4-6; and Part IV, Section 6.0, pp.8-9).

6. Explain how at least 10% by weight or weight equivalent of the total incoming waste stream will be recovered for reuse or recycling in accordance with 30 TAC §330.9(e)(1) and 30 TAC §330.203(b). Include a narrative on how and where the recovered material will be used. Discussion is provided and is consistent with the response to question 15 (see Part II, Section 2.2, p. 7; Part III, Section 2.2, p. 7; and Part IV, Section 6.3.2, pp. 13-14).

7. Correct or explain the water level information provided in Section 12 since the Hueco Bolson formation is not known to be a confined aquifer with artesian producing wells. Corrected to: "Depth to water below the El Paso area ranges from 250 to 400 feet." (see Part II, Section 12.0, p.14).

8. In accordance with §330.63(c)(2)(B) indicate whether the modified map in Figure II-7 is based on FEMA generated /approved data: provide the title, and year of publication of the source document; or have the map sealed and signed by authorized FEMA staff. The data are from FEMA as indicated in the text and Figure II.7 (see Part II, Section 14.0, p. 15).

9. Provide a review letter from the Texas Historical Commission in accordance with 30 TAC §330.61(o) in Section 16. Per teleconference with TCEQ on 7/25/18, leave it as is.

10. Provide a Council of Government and local government review request per 30 TAC §330.61(p). Per teleconference with TCEQ on 7/25/18, leave it as is.

11. In accordance with 30 TAC §330.61(i)(2) provide data on vehicular traffic volume on access roads within one mile of the facility. Per teleconference with TCEQ on 7/25/18, leave it as is.

12. Provide documentation of coordination with Texas Department of Transportation in accordance with 30 TAC 330.61(i)(4). Per teleconference with TCEQ on 7/25/18, leave it as is.

13. In accordance with 30 TAC §330.61(C)(8), include a map showing airports within six miles of the facility. Per teleconference with TCEQ on 7/25/18, leave it as is.

14. Correct the scale of the untitled aerial photograph in Attachment A; add a title and figure number for reference. Per teleconference with TCEQ on 7/25/18, leave it as is.

PART III

15. Section 2.2 (Waste Movement) states that "although at least 10% of the waste must be reused, it is intended that 100% of the incoming waste will be reused …". Clarify that re-use of waste is contingent upon the reduction within prescribed limits of the concentrations of specified contaminants. Include this explanation in Part IV, Section 6.0. Discussion is provided and is consistent with the response to question 6 (see Part II, Section 2.2, p. 7; Part III, Section 2.2, p. 7; and Part IV, Section 6.3.2, pp. 13-14).

16. Add inset maps to Figures III-2 & 3 to show the locations of the cross sections A, B, C, or reference such maps if they are included elsewhere in the application. References are inserted. Some additional minor edits were made to the drawings to make them consistent and congruent with the bio-cell as constructed (see Figures II.10, III.2 and III.3).

17. Correct or explain the discrepancy between Figure III-3 and Section 3.0 for geomembrane thickness. The installed geomembrane thickness is 40 mil (see Part II, Section 1.0, p. 3; Part II, Section 9.1, p. 11; Part II, Section 12.0, p. 14; Part III, Section 3.0, p. 13; and Part III, Attachment B, p. 26).

18. In accordance with 30 TAC §330.63(b)(1)(D), 30 TAC §330.207(b) and 30 TAC §330.331(b), submit drawings of the "Leachate Standpipe" and other tanks or sumps within the working surface. A new drawing (Fig. III.4) has been provided that shows both leachate standpipe and french drain details (see Part II, Section 9.1, p.11; Part III, Section 2.2, p. 11; Part III, Section 3.0, p. 13; and Fig. III.4).

19. In accordance with 30 TAC §330.63(b)(3), describe how the storage area of up to 100 cubic yards of manure will be cleaned and kept in sanitary conditions. Bio-cell floor surfaces and manure storage sanitation is discussed (see Part III, Section 2.3, pp. 11-12).

20. In accordance with 30 TAC §330.203(a), please address the following in Section 2.2 (Waste Movement):

a) Describe the sampling procedures of the accumulated waste in each of the roll offs;

Sampling and analytical procedures are provided and are consistent with the response to question 5 (see Part II, Section 2.1, p. 6; Part III, Section 2.2, pp. 4-5; and Part IV, Section 6.0, pp.8-9).

b) Explain how collected samples are representative of the bulk of the waste in the container, rather than individual batches scooped from different locations. See response to 20 a).

c) Explain how potentially hazardous waste in the roll offs will be isolated from the remaining waste. A discussion of POL and the isolation of hazardous waste are provided and are consistent with the response to question 5 (see Part II, Section 2.2, pp. 6-7 and Part III, Section 2.2, p. 6).

Clarify how the waste in Process B of Figure III-1 (Flow Diagram) will be distinguished from that of Process C. An organized and simplified discussion of blocks A, B, and C is provided (see Part III, Section 2.2, p. 6).

Revise the flow diagram to reflect the added information. "NOTE 2" in Figure III.1 was modified to: "Waste sources will be composite sampled, accumulated in 20-yard roll-offs, and analyzed, and roll-off COC concentrations will be calculated as described in Part III, Section 2.2". The process flow steps of Figure III.1 were also modified to clarify that all sources of waste are sampled, accumulated, and analyzed at the waste yard.

21. Discuss the onsite storage of facility generated wastes, in accordance with 30 TAC §330.209; This information is provided (see Part IV, Section 7.0, pp. 14-15). Include information on how waste

determined to exceed critical PCLs after processing will be handled at the site. This information is provided (see Part III, Section 2.2, p. 10).

PART IV

22. Revise Section 5.0 and Table 5.1 to address 30 TAC §330.139(2) for windblown waste and 30 TAC §330.153 for daily inspection of roads. Changed both to "Daily" (see Part IV, Section 5.0 and Table 5-1, pp. 6-7).

23. Add "Section 6.3.4, Part IV" referenced in Section 7.0 and Section 8.0 or remove the reference. This was changed to "6.3.3" (see Part IV, Sections 7.0 and 8.0, p. 15).

24. Elaborate on disposal methods for liquids generated from the bio-cell in Section 8, in accordance with 30 TAC §330.207. Leachate disposal methods are discussed (see Part IV, Section 6.3.3, p. 14 and Part IV, Section 8.0, p. 15).

25. Describe how admixtures will be segregated from each other and from windrows in accordance with 30 TAC §330.209(a); summarize how odors and windblown particulates from the admixtures will be controlled in accordance with 30 TAC §330.245(d). The requested information is provided (see Part IV, Section 9.0, p. 15).

26. In accordance with 30 TAC §330.69(b), provide evidence that updated notice signs were posted at the proposed registration site. A statement regarding the posting of public notice signs was provided (see Part I, Section 1.3, p. 4).

d) An original certification statement with the revision, in accordance with 30 TAC Section (§)305.44 should be included. The certification statement should indicate the name, title, and address of the responsible official; A new, original signatory certification for the revision is provided (See Part I, Attachment C, p.19).

FORT BLISS DIRECTORATE OF PUBLIC WORKS - ENVIRONMENTAL DIVISION

FORT BLISS BIO-CELL

EL PASO COUNTY, TEXAS

TYPE V MSW REGISTRATION APPLICATION

TECHNICAL NOD #1 REVISION

PARTS I-IV

Submitted to:

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY
12100 PARK 35 CIRCLE, AUSTIN, TX 78753

Submitted by:

FORT BLISS DIRECTORATE OF PUBLIC WORKS - ENVIRONMENTAL DIVISION
BLDG 777, PLEASONTON ROAD
FORT BLISS, TEXAS 79916

Prepared by:

THE THRIVAL COMPANY, LLC

Texas Board of Professional Engineers Firm Registration #15502

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

8-29-18

August 29, 2018 ~~January 15, 2018~~

Executive Summary

Fort Bliss is a 1.12 million-acre U.S. Department of Army installation that occupies parts of El Paso County in Texas and Dona Ana and Otero Counties in New Mexico. Fort Bliss is located in extreme western Texas near the borders of Texas, New Mexico, and Mexico and is adjacent to the City of El Paso, Texas. Average temperature is 94°F in the summer and 59°F in the winter; annual precipitation is 9.7 inches.

In February 2009, the Fort Bliss Directorate of Public Works-Environmental Division (FBDPW-ED) submitted a composting application for the Fort Bliss Bio-cell to the Texas Commission on Environmental Quality (TCEQ) to meet the requirements of 30 Texas Administrative Code (TAC) §332 (composting rules). The application was approved and since January 2010, the bio-cell has been treating two types of waste sources: (1) soils and non-crystalline absorbents contaminated with petroleum, oils, and lubricants and (2) dry sediments from oil-water separators. As a result of successful operations, Fort Bliss has not only been able to use the composted product as fill in the landfill, they have met more stringent treatment requirements that would allow Fort Bliss to recycle this material as fill, if permitted to do so.

Fort Hood, which has operations very similar to those of Fort Bliss, applied for and received a Type V Municipal Solid Waste (MSW) permit in November 2014 in accordance with 30 TAC §305 (Consolidated Permits) and §330 Municipal Solid Waste (MSW) rules. This permit allows Fort Hood to use the treated product from their bio-treatment facility as fill at their facility.

FBDPW-ED recognizes the benefits of diverting waste materials from local landfills and has also chosen to apply for a Type V Municipal Solid Waste (MSW) permit. Following a pre-meeting in June 2017 between Fort Bliss and the TCEQ's MSW team, TCEQ reviewed and confirmed that Fort Bliss should follow the same permitting approach as that used by Fort Hood.

The following presents the information requested in Subchapter B of 30 TAC 330. The application is divided into four parts as defined in the regulations:

Part I - General Information;
Part II - Existing Conditions;
Part III - Facility Design Information; and

Part IV - Site Operating Plan.

FBDPW-ED will process up to 2,000 cubic yards per year of waste and intends to reuse 100% of the processed waste material. The reusable material will meet levels that are below the Tier I Residential Soil protective concentration limits. FBDPW-ED proposes to process this material five days per week, Monday through Friday, between 8:00 a.m. and 5:00 p.m.

FORT BLISS BIO-CELL
TYPE V MSW REGISTRATION APPLICATION

PART I
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STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

Michael A. Frisch
3-16-18

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1.0 SUPPLEMENTARY TECHNICAL REPORT

30 TAC §305.45(a)(8)

1.1 General Description

Fort Bliss, is a 1.12 million-acre U.S. Department of Army installation located in parts of El Paso County, Texas and Dona Ana and Otero Counties in New Mexico. Fort Bliss is located in far west Texas, adjacent to the city of El Paso bordering the state of New Mexico and Mexico. Fort Bliss provides a high quality of life for a diverse community of over 162,000 people. Average temperature is 94°F in the summer and 59°F in the winter; annual precipitation is 9.7 inches.

This application presents the information that the Texas Commission on Environmental Quality (TCEQ) requires for the Fort Bliss Directorate of Public Works – Environmental Division (FBDPW-ED) to operate a registered Municipal Solid Waste Processing Facility (MSW Type V) pursuant to 30 Texas Administrative Code (TAC) §330.9(e). This section of the code references transfer stations; however, this facility will not operate as a transfer station as defined in 30 TAC §330.3(157) but will meet the requirements of 30 TAC §330.9(e)(1) and (2).

The proposed bio-cell is located approximately 5.25 miles north of the El Paso International Airport (ELP) terminal on an unnamed road immediately south of the now inactive Fort Bliss landfill. Figures I.1 and I.5 shows the general location of the facility. FBDPW-ED will own and operate the facility which will process waste material consisting of soil and non-crystalline absorbents contaminated with petroleum, oil, and lubricants (POL) and dry sediments from oil-water separators originating from within the Fort Bliss installation.

Reuse of processed material whose contaminant concentrations are reduced below the 0.5-acre Tier I Residential Soil Critical Protective Concentration Levels (PCLs), (see Attachment A in Part III), will occur within the Texas area of the installation unless State permits are sought for use in the NM portions of Fort Bliss. All disturbance or fill operations not within the bio-cell facility itself will require environmental review IAW normal Fort Bliss procedures.

Processed material with contaminant concentrations equal to or above the 0.5-acre Tier I Residential Soil critical PCLs ~~will~~ may be directly transported to and disposed of at the City of

El Paso Landfill (Clint, TX) and Camino Real Landfill (Sunland Park, NM). Figure I.1 shows the location of these landfills. Figure I.4 shows the end use locations in uncolored/unshaded areas for the treated soil that meets the 0.5-acre Tier I Residential Soil critical PCLs.

This registration application is being submitted under the provisions of 30 §TAC 330.9(e) such that a minimum of 10% of the incoming waste material will be recovered for reuse. Additionally, the remaining non-reusable material will be delivered to a landfill within 50 miles of the facility (unless specifically granted a variance).

1.2 Characteristics of Material

Material will consist of special waste as defined in 30 TAC §330.3(148)(N). FBDPW-ED proposes to process the waste material with an admixture of wood chips, manure, fertilizer (if needed), microbes (if needed) and water. The waste material consists of 1) soils and spill clean-up material contaminated with petroleum, oils, and lubricants and 2) dry sediments from oil-water separators located throughout the installation. Processed material to be reused will meet the definition of recyclable material (i.e., material diverted from a non-hazardous waste stream for purposes of reuse) found in 30 TAC §330.3(122) and will not be considered solid waste.

FBDPW-ED will receive up to 2,000 cubic yards (CY) of waste material per year for processing. A minimum of 10% (200 cubic yards/year) of the material brought to the site will be recovered for beneficial reuse.

FBDPW-ED will keep records of the total number of loads and estimated cubic yardage accepted at the facility and the number of loads reused or disposed. The quantity of material will be recorded and converted to a weight equivalent.

1.3 Other Information

This registration application has been prepared to demonstrate compliance with the requirements established in 30 TAC §330.57 through §330.65 (Subchapter B). This application is formatted to include Parts I through IV as specified in the Municipal Solid Waste Management Regulations.

Per the requirements of 30 TAC §330.69(b), public notice signs were posted at Fort Bliss' Buffalo Soldier Gate entrance from July 6, 2018 through September 5, 2018.

2.0 MAPS

30 TAC §330.59(c)

The General Location Map, Detailed Location Map, Land Ownership Map, ~~and~~ Material End Use Locations Map and Texas Department of Transportation (TxDOT) Map are presented in Figures I.1 through ~~I.4~~I.5, respectively. The registration boundary will be within the property owned by FBDPW-ED as shown in Figure I.3.

3.0 LAND OWNERSHIP MAP AND LIST

30 TAC §330.59(c)(3)

The following is the owner of record of real property located within ¼ mile of the registration boundary.

LANDOWNERS LIST

USAG Fort Bliss
Attn: Mr. Alfredo Riera, P.E., Director IMBL-PWM
Bldg. 777 Pleasonton Road
Fort Bliss, TX 79916

4.0 PROPERTY OWNER INFORMATION

30 TAC §330.59(d)

The bio-cell is located on the Fort Bliss Army Installation which was established on November 7, 1848, by the U.S. War Department to protect railways, stage routes, and settlers. The post was renamed from "Post of El Paso" to "Fort Bliss" in honor of Lieutenant Colonel William Wallace Bliss on March 8, 1854. Several locations were abandoned due to periodic flooding from the Rio Grande. In March of 1890, the citizens of El Paso raised money to purchase the current site for the post. Troops began to occupy the current site on Noria Mesa in 1893. Following the turn of the century, Fort Bliss entered its greatest growth period when the Army responded to a raid across the border by Pancho Villa. Border security became a major concern from that time on. William Beaumont Army Medical Center and Biggs Army Airfield were added after World War II.

The property is shown on Figure I.3 and is the current available record as of the date of this registration application. The facility is solely contained within the boundaries of the Fort Bliss Army Installation therefore, there are no adjacent landowners. The metes and bounds description of the property and a final plat record of the property are included in Attachment A. A property owner affidavit is shown in Attachment B.

5.0 LEGAL AUTHORITY

30 TAC §330.59(e)

The bio-cell is owned and operated by the U.S. Department of the Army therefore, as an agency of the Federal Government, a certificate of incorporation from the Office of the Secretary of State is not applicable.

6.0 EVIDENCE OF COMPETENCY

30 TAC §330.59(f)

FBDPW owns and has operated the Fort Bliss Type 1 MSW Landfill from 1982 to 2017. The facility served the local Fort Bliss community of Soldiers, Civilians, and their Family members. Table 6-1 shown below summarizes the landfill information.

Table 6-1 Fort Bliss Landfill

Site Name	Site Type	Permit/Registration No.	County	Dates of Operation
Ft. Bliss Landfill	Type 1	Permit 1422	El Paso	1982-2017

A licensed solid waste facility supervisor will be on site at all times during the operation of the bio-cell, in accordance with 30 TAC §330.59 (f)(3). The licensed solid waste facility supervisor will possess, at a minimum, a Class B license.

7.0 APPOINTMENTS

30 TAC §330.59(g)

Certification that this application for the registration of the bio-cell has been signed by someone having authority to do so as required by 30 TAC §305.44 is provided in Attachment C.

8.0 APPLICATION FEES

30 TAC §330.59(h)

The application fee for this registration application was electronically submitted through the TCEQ's ePay system on July 13, 2017. A copy of the payment documentation is provided in Attachment D.

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Figures

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GENERAL LOCATION MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/ESRI Base Maps
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 1.5 3 Miles
0 2.5 5 Km
N
Map Projection: WGS 84 UTM Zone 13N

- Fort Bliss Roads
- Storm Water Detention Ponds
- Bio-cell
- Landing Strip
- 6 mile Buffer
- Fort Bliss Boundary
- Railroad

Revisions

No.	Date	Description

January 2018 | **Figure I.1**

DETAILED LOCATION MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
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F-15502

Michael A. Frisch
3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 500 1,000 Feet
0 160 320 Meters
Map Projection: WGS 84 UTM Zone 13N
N

- Fort Bliss Roads
- Railroad
- Non-perennial Streams
- Storm Water Detention Ponds
- Bio-cell
- Fort Bliss Boundary

Revisions

No.	Date	Description

January 2018 | **Figure I.2**

LAND OWNERSHIP MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

Michael A. Frisch
3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 500 1,000 Feet
0 150 300 Meters
Map Projection: WGS 84 UTM Zone 13N
N

- Fort Bliss Roads
- Railroad
- Bio-cell
- 1/4 mile Buffer
- Fort Bliss Boundary

Revisions

No.	Date	Description

January 2018 | **Figure I.3**

MATERIAL END USE LOCATIONS MAP FORT BLISS, TEXAS BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguire
Reviewed By: Mike Frisch, PhD, PE, CEM

0 2 4 Miles
0 2.5 5 Kilometers
Map Projection: WGS 84 UTM Zone 13N
N

- Fort Bliss Boundary
- County Boundary
- Flora Limited Use Area
- Flora Off Limits Areas
- Historic Structure Site
- Historic Landscapes
- Hist. Features Rock Shelters
- Cultural Restricted Area
- Historic Districts
- Ft Bliss Landfill/DERA Sites
- Landing Strip

Revisions

No.	Date	Description

January 2018 | Figure I.4

Counties: **El Paso** Districts: **El Paso** Page 948

TxDOT COUNTY MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

FOR PERMITTING PURPOSES ONLY

Data Source: Texas Department of Transportation
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

8-29-18

Revisions

No.	Date	Description

August 2018 **Figure I.5**

Attachment A - Property Owner Information

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Land - Mark Professional Surveying Inc.

"Serving Texas, New Mexico and Arizona"

METES AND BOUNDS DESCRIPTION

A 2.2788 ACRE PARCEL OF LAND LYING WITHIN UNITED STATES GOVERNMENT PROPERTY (FORT BLISS MILITARY RESERVATION), EL PASO COUNTY, TEXAS, BEING MORE PARTICULARLY DESCRIBED BY METES AND BOUNDS AS FOLLOWS:

COMMENCING for reference at an existing 5/8" rebar at panel point No. 3 as shown on the topographic map of Municipal Solid Waste Landfill, Fort Bliss Texas, prepared by Air Dimension Mapping, L.L.C. dated March 26, 2007 with a (NAD83) UTM Grid Coordinate value of 11573838.916 North and 1207906.432 East in U.S. Survey Feet. **THENCE,** South 10°04'11" East a distance of 128.64 feet to an existing chainlink fence corner for a corner of this parcel and the **POINT OF BEGINNING** for the following parcel description:

THENCE, South 87°05'23" East with an existing chainlink fence a distance of 299.34 feet to an existing chainlink fence corner for a corner of this parcel;

THENCE, South 01°10'18" West with said existing chainlink fence a distance of 326.99 feet to an existing chainlink fence corner for a corner of this parcel;

THENCE, North 89°01'13" West with said existing chainlink fence a distance of 298.74 feet to an existing chainlink fence corner for a corner of this parcel;

THENCE, North 01°05'34" East with said existing chainlink fence a distance of 337.07 feet to the TRUE **POINT OF BEGINNING.**

Containing 2.2788 Acres (99,266 Square Feet) more or less.

LAND-MARK PROFESSIONAL SURVEYING, INC.

Kenneth R. Kindle, R.P.L.S.
Texas Reg. No. 5710
Job # 07-03-24864
October 29, 2007

STATE OF TEXAS
REGISTERED
KENNETH R. KINDLE
5710
PROFESSIONAL
LAND SURVEYOR

1420 Bessemer • El Paso, Texas 79936
Tel. (915) 598-1300 • Fax (915) 598-1221 • E-mail address: Larry@Land-Marksurvey.com

MUNICIPAL SOLID WASTE
LANDFILL

NOTES:
BEARINGS AND HORIZONTAL COORDINATES BASED UPON TOPOGRAPHIC MAP OF MUNICIPAL SOLID WASTE LANDFILL , FORT BLISS, TEXAS, PREPARED BY AIR DIMENSION MAPPING L.L.C. DATED MARCH 26, 2007.

DATE OF SURVEY: OCTOBER 19, 2007.

I hereby certify that the foregoing boundary and improvement survey was made by me or under my supervision and substantially complies with the current Texas Society of Professional Surveyors minimum Standards and Specifications.

Kenneth R. Kindle, R.P.L.S.
Texas 5710

Plat of Survey

BIO-CELL LOCATION WITHIN UNITED STATES GOVERNMENT PROPERTY
(FORT BLISS MILITARY RESERVATION)
EL PASO COUNTY, TEXAS.

Land-Mark Professional Surveying, Inc.
1420 Bessemer Drive, Suite 'A',
El Paso, Texas 79936
(915) 598-1300
email: Bob@Land-marksurvey.com
"Serving Texas, New Mexico & Arizona"

Job No. 07-02-24864	Scale: 1" = 100'	Date: October 29, 2007.

Attachment B - Property Owner Affidavit

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Property Owner Affidavit

I, COL Steve O. Murphy, acknowledge that the State of Texas may hold me either jointly or severally responsible for the operation, maintenance, and closure of the bio-cell. I further acknowledge that I or the operator and the State of Texas shall have access to the property during the active life and after closure for the purpose of inspection and maintenance, if required.

16 Mar 18

Steve O. Murphy
Colonel, U.S. Army
Commanding

Date

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Attachment C - Signatory Certification

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Signatory Certification

I, Alfredo J. Riera, certify under penalty of law, have the authority to sign this registration application in accordance with 30 Texas Administrative Code (TAC) §305.44(a)(3).

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 the 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.

8/29/18

Date

Alfredo J. Riera, P.E.
Director, Fort Bliss Directorate of Public Works
Building 777, Pleasonton Road
Fort Bliss, TX 79916

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Attachment D - Application Fees

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TCEQ ePay Receipt

Transaction Information

Trace Number:	582EA000264334
Date:	07/13/2017 02:06 PM
Payment Method:	CC - Authorization 000008836G
Amount:	$150.00
ePay Actor:	Mike Frisch

Payment Contact Information

Name:	Michael Frisch
Company:	The Thrival Company
Address:	5732 Gorham Glen Lane, Austin, TX 78739
Phone:	512-745-3692

Cart Items

Voucher	Fee Description	AR Number	Amount
328376	MSW PERMIT/REGISTRATION/AMEND/MOD/TEMP AUTHORIZATIONS APPLICATION FEE		$100.00
328377	30 TAC 305.53B MWP NOTIFICATION FEE		$50.00

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FORT BLISS BIO-CELL
TYPE V MSW REGISTRATION APPLICATION

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

8-29-18

PART II
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1.0 EXISTING CONDITIONS SUMMARY

30 TAC §330.61(a)

FBDPW-ED is pursuing registration of a Type V MSW waste processing facility, also known as the bio-cell, in accordance with 30 TAC §330.9(e). The purpose of the bio-cell is to properly manage two types of waste sources, soil and non-crystalline absorbents contaminated with petroleum, oil, and lubricants (POL) and dry sediments from oil-water separators. Although 30 TAC §330.9(e) addresses transfer stations, this facility will not operate as a transfer station as defined in 30 TAC §330.3(157), but will meet the registration requirements of 30 TAC §330.9(e)(1) and (2). FBDPW-ED owns and operates the existing bio-cell. The bio-cell working surface spans 0.43 acres and is constructed as follows (from top to bottom):

36 inches compacted crushed fines;

PE-12 geotextile fabric;

40~~20~~-mil HDPE geomembrane liner;

PE-12 geotextile fabric; and

6 inches compacted clay/caliche ~~subgrade~~.

The working surface sits three- to six-feet below grade. A berm, ranging in height from two- to four-feet above grade, encompasses all four edges of the working surface. The slopes from the buffer area to the top of the berm and from the top of the berm to the working surface are designed to allow transport of large vehicles loaded with soil/product in and out of the bio-cell.
As shown in Figure II.9, the bio-cell is located immediately south of the Fort Bliss landfill and can be accessed by driving 3.7 miles north on Sanitary Landfill Road, from 601 (Liberty Expressway) and proceeding eastbound on an unnamed access road. As shown on Figure II.2, the bio-cell working surface includes the treatment area and storage areas for wood chips and manure. All scheduled vehicle maintenance activities (including but not limited to oil and other fluid changes) will be done off-site at an authorized facility.

The bio-cell will process multiple waste streams to carry out the bio-treatment process. In doing so, FBDPW-ED will divert organic materials from the waste stream for reuse rather than sending them

to local landfills. The site has adequate separation from its neighbors and is compatible with existing land use.

FBDPW-ED is preparing this registration for a Type V MSW facility in accordance with 30 TAC §330.9(e) which requires that the operator recover a minimum of 10% by weight or weight equivalent of the total incoming waste stream for reuse and the remaining will be transported to a landfill within 50 miles of the facility. However, FBDPW-ED intends to recover 100% of the received waste material, if possible.

2.0 WASTE ACCEPTANCE PLAN

30 TAC §330.61(b)

The bio-cell will receive soil and non-crystalline absorbents contaminated with petroleum, oil, and lubricants (POL) and dry sediments from oil-water separators. The material will be exposed to an admixture of common vegetative debris, horse manure, water, and in some instances, fertilizer and/or microbes, to promote biodegradation of the POL contaminants. Reuse of processed material with contaminant levels less than the 0.5-Acre Tier I Residential Soil Critical Protective Concentration Levels (PCLs) will occur within the Texas area of the installation unless State permits are sought for use in the NM portions of Fort Bliss. All disturbance or fill operations not within the bio-cell facility itself will require environmental review IAW normal Fort Bliss procedures.

Processed material with contaminant concentrations equal to or above the 0.5-acre Tier I Residential Soil critical PCLs ~~will~~ may be directly transported to and disposed of at the City of El Paso Landfill (Clint, TX) and Camino Real Landfill (Sunland Park, NM).

2.1 Sources and Characteristics of Waste

Wastes delivered to the bio-cell will be exclusively from Fort Bliss-owned property located in El Paso County in Texas and Dona Ana and Otero counties in New Mexico.

Wastes that will be processed at the bio-cell will include:

- Soil contaminated from POL spills and non-crystalline absorbents (not including

kitty litter, rags, pads, socks, etc.) used to clean-up POL spills; and

- Dried oil-water separator sediment.

Various military activities conducted in Texas and New Mexico generate the wastes that will be processed by the bio-cell. POL-contaminated soil and absorbents will originate from maintenance facilities, training areas, petroleum storage tanks, and storm water detention basins located throughout the installation. Maintenance facilities which are scattered throughout the installation will produce sediment from oil-water separators, which will be subsequently dried at pads and consolidated with soil and absorbents at the waste yard ~~and eventually transported to the bio-cell~~.

Waste material will consist of special waste as defined in 30 TAC §330.3(148)(N). Material that will be reused will have analytical results that are below the 0.5-acre Tier I Residential Soil Critical PCLs (see Attachment A in Part III) for the following Chemicals of Concern (COCs): arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, Total Petroleum Hydrocarbons (TPH), benzene, and Polychlorinated Biphenyls (PCBs). The processed waste that is below the critical PCL from all identified COCs will meet the definition of recyclable material found at 30 TAC §330.3(122) and will not be considered special waste. However, processed material may still be considered special waste when TPH and/or benzene concentrations are not reduced below the critical PCLs. Table 2-1 provides a summary of the sources of waste and each of their COCs.

Table 2.1 Waste Sources

Waste Sources	Chemicals of Concern (COCs)
POL-Contaminated Soil and Absorbents	Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Total Petroleum Hydrocarbon (TPH), Benzene, and Polychlorinated Biphenyls (PCBs)
Dried Oil-Water Separator Sediments	Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, Silver, Total Petroleum Hydrocarbon (TPH), Benzene, and Polychlorinated Biphenyls (PCBs)

The facility will not be able to process all incoming wastes. No hazardous waste will be accepted at the facility for processing. If metals or PCB concentrations exceed the critical PCLs, that waste stream will also be rejected. The bio-cell can only reduce the concentration of TPH and benzene in the accepted waste stream.

Soil and absorbents and dried oil/water separator sediments from various Fort Bliss locations are received at the Hazardous Waste Field Services' waste yard in varying numbers and sizes of containers, depending on the type and volume of waste. It will often require waste from multiple events (i.e., spills or oil/water separator cleanouts) to fill a 20-yard roll-off. When waste from an event is received at the waste yard, all waste containers from that event will be sampled to make a composite sample of that event. The waste from that event will be placed in the roll-off. The composite sample will be stored at 0 to 6 degrees C until 1) it can be extracted at the laboratory within the 14-day hold time or 2) the roll-off is filled with waste from subsequent events, whichever is shorter in duration. If waste from that event fills or completes a roll-off, within the time required to meet the hold time of the first event that contributed to that roll-off, all composite samples from that roll-off will be used to create a volume-proportionate roll-off composite (composite of a composite) sample that is sent to the lab for analysis. If a roll-off is not filled in time for the first contributing event's composite sample to meet the 14-day extraction hold time, a volume-proportionate composite (composite of a composite) sample of that partial roll-off will be created and sent to the lab for analysis. Waste from subsequent events may be used to fill a partially full roll-off, provided that the same sampling and analysis protocol is used. Roll-off contaminant concentrations will be calculated from composite sample analyses and their respective waste volumes. Event waste volumes, container volumes and numbers, windrow numbers, sample dates, sample results, and roll-off concentrations will be logged to track wastes and accurately calculate the COC concentrations in each full roll-off. All samples must be stored/transported in a refrigerator or ice-filled cooler at all times. All samples will be analyzed for metals, TPH, Benzene and PCBs as shown in Attachment A of Part III.

POL (petroleum, oils, and lubricants) includes diesel fuel and gasoline; however, waste volumes from diesel spills far exceed waste volumes from gasoline. Because gasoline spills are characterized as a toxic hazardous waste, gasoline-contaminated waste must be managed

separately from all other POL-contaminated wastes. The waste yard is very careful to ensure that wastes from gasoline spills are segregated, labeled, and disposed of as hazardous waste. As a backup measure, composite sampling of the roll-offs will identify, via total benzene concentration, if any gasoline-contaminated waste is present. Wastes that exceed total benzene concentration of 10 mg/kg will be labeled and disposed of as hazardous waste. Likewise, wastes that exceed any total metal concentration (As, Ba, Cd, Cr, Hg, Pb, Se, or Ag) of 20 times its respective TCLP concentration will be labeled and disposed of as hazardous waste.

Roll-offs that are determined to be eligible for treatment at the bio-cell will be transported from the waste yard to the bio-cell.

2.2 Quantity of Waste

The maximum waste received at the bio-cell will not exceed 2,000 cubic yards per year. The arithmetic average amount of waste that will be received at the facility will be approximately 5.5 cubic yards per operating day. However, waste will most commonly be received in 20 cubic yard containers. The bio-cell will accommodate the incoming waste on an as needed basis provided that adequate space is available at the facility and the maximum annual waste quantity of 2,000 cubic yards is not exceeded.

It is anticipated that the bio-cell will reuse at least 10 % of all waste that enters the facility. Waste volumes that are processed at the bio-cell will be recorded and tracked to determine if waste was treated to reuse standards. Upon completion of processing each windrow, whether successfully or unsuccessfully treated, reuse percentage will be calculated by dividing the volume of waste treated to reuse standards by the total volume of waste that was processed by the bio-cell. Figure I.4 shows the end use locations in uncolored/unshaded areas for the treated soil that meets the 0.5-acre Tier I Residential Soil critical PCLs, as denoted by block "D" of Figure III.1 in Part III. Reusable material will serve as fill for various uses, including, but not limited to, road-based excavations and building structures.

3.0 QUALIFICATION FOR REGISTRATION

30 TAC §330.61(b)(2)

The bio-cell will be a Type V MSW facility that will receive and process up to 2,000 cubic yards

per year of special waste. However, this facility will not operate as a transfer station as defined in 30 TAC §330.3(157), but will meet the registration requirements of 30 TAC §330.9(e)(1) and (2). The facility is qualified to be registered in accordance with provisions 30 TAC §330.9(e)(1) by recovering a minimum of 10 percent by weight or weight equivalent for reuse. The facility is qualified to be registered in accordance with provisions in 30 TAC §330.9(e)(2) by disposing of municipal solid waste unsuccessfully processed at a permitted landfill no more than 50 miles from the facility, as shown on Figure I.1 of Part I.

4.0 GENERAL LOCATION MAPS

30 TAC §330.61(c)

The following information is presented on figures submitted as part of this registration application.

- The prevailing wind direction with a wind rose is presented on Figure II.1.
- Known water wells within 500 feet of the registration boundary are shown on Figure II.8.
- Figure II.4 shows the locations of all structures and inhabitable buildings within 500 feet of the proposed facility. The three structures shown in Figure II.4 include the bio-cell office, the butler building, and a 10,000-gallon water tank. None of these structures are residences.
- Schools (0), licensed day-care facilities (1), churches (4), hospitals (0), cemeteries (0), ponds (0) and lakes (0), and recreational areas (1) within one mile of the facility are shown on Figure II.1.
- Residential and industrial/commercial areas within one mile of the facility are shown in Figure II.6.
- Location of roads and surface type within 1 mile that will be used for facility access are shown on Figure II.9. These include: Sanitary Landfill Road (asphalt), Unnamed bio-cell access road (gravel) and Alternate unnamed bio-cell access road (gravel). Note that public roads within one mile of the bio-cell that are located in the City El Paso, do not have connecting roads that provide access to the bio-cell.
- The latitude and longitude of two corners of the facility are shown on Figure I.2 of Part I.
- Area non-perennial streams (arroyos) and storm water detention ponds are shown on Figure II.4. There are no perennial streams or dry weather lakes or ponds in the area.

- There are two airports within 6 miles of the facility as shown on Figure I.1 of Part I.
- The Fort Bliss installation and bio-cell registration boundaries are shown in Figures I.1-3 and II.1-11.
- Drainage, pipeline, and utility easements within and adjacent to the facility are shown on Figure II.10. The only draining used within the bio-cell boundary is the french drain system. There are no pipelines or utility easements within the bio-cell boundary.
- Facility access control features are shown on Figure II.2.

5.0 FACILITY LAYOUT MAPS

30 TAC §330.61(d)

A facility layout map is provided as Figure II.2. This map provides information on:

- The outline of the material processing and storage areas;
- Interior roadways;
- Locations of buildings;
- Fencing; and
- Site entrance from public access roads.

There are no ground water monitoring wells located at the bio-cell.

6.0 GENERAL TOPOGRAPHIC MAPS

30 TAC §330.61(e)

A general topographic map is presented as Figure II.3. Additionally, a USGS quadrangle map has been used as the basis for Figure II.1. This map is at a scale of one inch equals 2,000 feet.

7.0 AERIAL PHOTOGRAPH

30 TAC §330.61(f)

An aerial photograph of the required size and scale is provided as Figure II.5. The site boundaries and an area within a one-mile radius are shown.

8.0 LAND-USE MAP

30 TAC §330.61(g); §330.543

Land-use information is presented on Figures II.1 and II.6. Figure II.1 shows specific structures such as schools, day care facilities, and recreational areas while Figure II.6 shows residential and industrial/commercial areas within one mile of the facility. The land usage presented on this map was obtained from the FBDPW-ED and is believed to be accurate as of the date of its preparation (2018). This land use information was checked by aerial map investigation and revisions made where applicable based on current use.

The majority of the land within one mile of the bio-cell is located on the Fort Bliss installation with the exception of the northwestern portion which is located in the City of El Paso. Security fencing prevents public access to the bio-cell from City land. Access roads serving the facility are shown in Figure II.9. There are two unnamed roads by which the bio-cell can be accessed. The northernmost unnamed road is the primary road that accesses the bio-cell. The southernmost unnamed road allows alternative road access to the bio-cell in case parts of the primary access road are inundated with water or impassable. There has been no change in land use around the facility boundary.

There are no utility easements or rights of way near or adjacent to the bio-cell. However, drainage internal to the bio-cell is shown in Figure II.10. Figure II.11 shows that the minimum 50-ft buffer zones are present between the edge of the bio-cell working surface and the site fence lines.

9.0 IMPACT ON SURROUNDING AREA

30 TAC §330.61(h)

The bio-cell will not have an adverse impact on human health or the environment. There is no applicable zoning requirement that would prohibit the facility therefore, no approval or special permit is required from any local government. FBDPW-ED has already granted authority for the development and operation of the facility since 2009, which reflects the current conditions at the site.

9.1 Potential Impact to the Human or Natural Environment

Adverse impacts to the environment are not anticipated from this facility. All operations at the bio-cell will occur within the fenced perimeter. The bio-cell working surface spans 0.43 acres and is constructed as follows (from top to bottom): 36 inches compacted crushed fines; PE-12 geotextile fabric; 40~~20~~-mil HDPE geomembrane liner; PE-12 geotextile fabric; and six inches compacted clay/caliche ~~subgrade~~. The working surface sits three to six feet below grade. A berm, ranging in height from two to four feet above grade, encompasses all four edges of the working surface. Because the liner is impervious, the bio-cell is designed to contain and retain all materials placed in it as well as any precipitation. The surrounding berms and grading were designed to ensure that precipitation falling outside of the bio-cell is diverted and transported away from the area. Figures III.2, ~~and~~ III.3 and III.4 show the construction details of the bio-cell.

Noise generated by the periodic operation of facility equipment will be minimal, but will include a skid steer (Bobcat) or comparable equipment, gas-powered pumps, and trucks transporting material to and from the facility. The facility is located within an isolated area of the Fort Bliss installation that historically conducted landfill operations on an adjacent tract of property. The operating hours of the bio-cell will be in general conformance with the operating hours of adjacent area operations.

9.2 Compatibility with the Surrounding Area

The bio-cell is located along the northwest boundary of the Biggs Army Airfield portion of Fort Bliss. The location of the facility is compatible with adjacent operations. The facility is located east of Sanitary Landfill Road, 3.7 miles north of 601 (Liberty Expressway). Sanitary Landfill Road experiences constant vehicular traffic which includes oversized military vehicles.

Property within one mile of the bio-cell on Fort Bliss is sparsely developed. Substantial development has occurred on lands within the City limits in this one-mile radius. The City of El Paso is located approximately one-half mile to the west of the bio-cell. The area supports both residential and industrial/commercial use and includes four churches, one day care facility, numerous restaurants and a recreational area.

Residential use includes multifamily and single-family subdivisions. The closest housing unit is

approximately 2,500 feet to the northwest of the bio-cell. There are approximately 4,060 residents who live within one-mile of the site. This estimate was based on the average number of residents per household (3.14) taken from the U.S. Census Bureau estimates for El Paso, Texas from 2011 to 2015.

There are no schools located within one mile of the bio-cell. Cora's Daycare is approximately 5,000 feet east northeast of the facility. Four churches are located within 3,000 and 5,000 feet east and northeast of the bio-cell. There are no historical sites or sites with exceptional aesthetic qualities adjacent to the facility. Although there are two archeological sites located within one mile of the bio-cell, their locations cannot be disclosed as this information is protected under the Archaeological Resources Protection Act (ARPA).

The nearest residents cannot see the facility due to the presence of existing structures scattered over a minimum of 2,500 feet between the facility and the closest residence. Additionally, noises associated with the operation of the facility will not be discernible to the occupants of the residence because of the infrequent occurrence and significant separation distance.

Through a physical site investigation and a Texas Water Development Board (TWDB) database search, it has been determined that there are no groundwater production wells or monitoring wells within 500 feet of the bio-cell boundary, as shown on Figure II.8.

10.0 TRANSPORTATION

30 TAC §330.61(i)

All traffic associated with the bio-cell will approach northbound on Sanitary Landfill Road then eastbound for 0.5 miles on one of two unnamed gravel roads to the bio-cell entrance gate. The unnamed access roads are used only for bio-cell traffic. Fort Bliss DPW-ED keeps access roads clear and clean of debris, periodically sprays them with water for dust control, and keeps records to demonstrate compliance with site access road maintenance requirements. Fort Bliss has set an enforced speed limit of 5 miles per hour on the access roads and within the boundaries of the bio-cell. Under these management practices, access roads show no signs of deterioration or significant erosion since their construction 18 years ago.

Roads on Fort Bliss are typically designed to exceed the Texas Department of Transportation

(TXDOT) standards given the heavy vehicular traffic associated with military operations (e.g., infantry fighting vehicles, armored personnel carriers, light armored vehicles, etc.). Road names and their method of construction are illustrated in Figure II.9.

At maximum waste acceptance rates of 2,000 cubic yards per year, the vehicular traffic expected on the access roads is approximately five round trips per day via light truck and one round trip per day via material transport truck. The actual vehicular traffic will vary depending on the amount of space available at the bio-cell to treat the material and the frequency of spills and cleanups that are occurring at the Fort Bliss installation.

All roads within one mile of the bio-cell that are used to access the bio-cell, will be managed by Fort Bliss Directorate of Public Works. Outside of one mile, public roads may be utilized to retrieve and dispose of waste and bio-cell product, respectively, to more remote areas of the Fort Bliss installation. The impact on public roads is expected to be minimal.

11.0 GENERAL GEOLOGY AND SOILS STATEMENT

30 TAC §330.61(j)

The Fort Bliss reservation is located mostly within the Tularosa Basin to the north and the Hueco Bolson aquifer to the south. Both the Tularosa Basin and Hueco Bolson are hydraulically connected to each other (Wilkins, 1986) and have been combined into the Hueco-Tularosa aquifer (Hibbs and others, 1997). Both Basin/Bolson consist of unconsolidated to slightly consolidated deposits composed of fine- to medium-grained sand with interbedded lenses of clay, silt, gravel, and caliche. Sediments in the bolson are fluvial, evaporitic, alluvial fan, and aeolian in origin and have a maximum thickness of approximately 9,000 ft. (Mattick, 1967; Cliett, 1969; Abeyta and Thomas, 1996).

Soils at the bio-cell consist of Copia-Nations complex and Hueco loamy fine sand as shown in the USDA Natural Resource Conservation Service, *Custom Soil Resource Report for Fort Bliss Military Reservation, New Mexico and Texas* found in Part II, Attachment A. These soils contain loamy fine sand, fine sandy loam, cemented material, and loam down to depths of 80 inches. In general, these soils readily drain precipitation and do not result in excessive ponding during and after precipitation events.

12.0 GROUNDWATER AND SURFACE WATER

30 TAC §330.61(k)

The primary source of groundwater in the bio-cell area is the unconsolidated and semi-consolidated Hueco Bolson deposits. Depth to water below the El Paso area ranges from 250 to 400 feet ~~The depths of these deposits range from 600 to 1,200 feet below the surface with groundwater located at about 300 feet below the surface~~. The Hueco Bolson deposits supply groundwater to the City of El Paso, Ciudad Juarez (Chihuahua, Mexico), Fort Bliss Military Reservation, private industries, and agricultural areas. No perched water tables have been noted in the unsaturated zone in the vicinity of the bio-cell.

The bio-cell liner system was designed to prevent contamination or degradation of the groundwater, as such it has a hydraulic conductivity of 1×10^{-7} centimeters per second or less. The liner is constructed of high-density polyethylene (HDPE) with a minimum thickness of 40~~20~~ mils.

The bio-cell is located in West Texas where desert conditions exist. Daytime summer temperatures range between 90 and 105 degrees F and winter temperatures range from 55 to 60 degrees F. The area receives less than 10 inches of rain per year and relative humidity is very low, facilitating rapid evaporation of surface water. These conditions, coupled with well-drained soil, results in very sparse incidence of surface waters. As such, the nearest surface water to the bio-cell is an arroyo located at least 500 feet away and there are no lakes, ponds, or perennial streams located within one mile of the bio-cell.

The bio-cell is not located in the 100-year flood plain and is designed to contain all precipitation from a 25-year flood event and divert any run-on from the surrounding area. Although it is very unlikely that any bio-cell waste or wastewater would be discharged to the waters of the state, the bio-cell is covered as part of the Fort Bliss installation under storm water permit #TXR05DA47. For additional details, see Attachment B of Part III for a hydrological analysis of the bio-cell.

13.0 ABANDONED OIL AND WATER WELLS

30 TAC §330.61(l)

There are no abandoned oil or water wells within the facility boundary.

14.0 FLOODPLAINS AND WETLANDS STATEMENT

30 TAC §330.61(m); §330.547; §330.553

The bio-cell is not located within the 100-year flood plain, as shown on Figure II.7. The 100-year flood plain data were obtained from FEMA as shown in the legend block of Figure II.7. FBDPW-ED's National Environmental Policy Act (NEPA) specialist has reviewed all relevant site information and determined that no waters of the U.S. or wetlands exist within or directly adjacent to the bio-cell boundary. Furthermore, no jurisdictional features exist within or directly adjacent to the bio-cell boundary, therefore, completing a wetlands delineation under the guidance of the U.S. Army Corps of Engineers is not required. This information is summarized in a Record of Environmental Consideration (REC) issued by FBDPW-ED, as shown in Attachment B.

15.0 ENDANGERED OR THREATENED SPECIES

30 TAC §330.61(n)

There are no federal or State endangered species within the bio-cell site. Nor is there habitat for those species within the bio-cell site itself. Any reuse of soil treated in the bio-cell to other portions of Fort Bliss will require review and approval of the reuse action by FBDWP-ED, in accordance with procedures analyzed in the 2007 Fort Bliss Mission and Master Plan Environmental Impact Statement. Information on the Natural Resources on Fort Bliss, including soils and vegetation found in the vicinity of the bio-cell are found in the 2016 Fort Bliss Integrated Natural Resources Management Plan. This information is summarized in a Record of Environmental Consideration (REC) issued by FBDPW-ED, as shown in Attachment B.

16.0 TEXAS HISTORICAL COMMISSION REVIEW

30 TAC §330.61(o)

FBDPW-ED Conservation Branch has issued a Record of Environmental Consideration (REC) stating that the location and operation of the bio-cell will not impact any historical properties. No archaeological sites, historical sites, and sites with exceptional aesthetic qualities exist within or

adjacent to the facility. Although there are two archeological sites located within one mile of the bio-cell, their locations cannot be disclosed as this information is protected under the Archaeological Resources Protection Act (ARPA). A copy of the REC is included in Attachment B.

17.0 COUNCIL OF GOVERNMENTS AND LOCAL GOVERNMENT REVIEW

30 TAC §330.61(p)

The registration application will be reviewed by FBDPW-ED, which serves as the installation division responsible for oversight and compliance with solid waste management and regulation.

Figures

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See Figure II.5 for landuse map around the bio-cell.

USGS The National Map: National Boundaries Dataset, National Elevation Dataset, Geographic Names Information System, National Hydrography Dataset, National Land Cover Database, National Structures Dataset, and National Transportation Dataset; U.S. Census Bureau - TIGER/Line; HERE Road Data

USGS QUADRANGLE MAP
FORT BLISS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502
3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 1,000 2,000 Feet
0 300 600 Meters
Map Projection: WGS 84 UTM Zone 13N
N

- Church
- Daycare
- Schools
- 500 ft Buffer
- 1 mile Buffer
- Fort Bliss Boundary
- County Boundary
- Bio-cell
- Landing Strip
- Recreational Area

Revisions

No.	Date	Description

January 2018 | **Figure II.1**

1. WASTE MATERIAL WILL BE CHECKED BY THE BIO-CELL OPERATOR AT THIS GENERAL LOCATION PRIOR TO UNLOADING. UNLOADING LOCATION WILL OCCUR AT THE DIRECTION OF THE BIO-CELL OPERATOR.
2. INGRESS AND EGRESS PATTERNS WILL VARY DEPENDING ON THE LOCATION OF THE WINDROW BEING FORMED AND WILL BE SUBJECT TO BIO-CELL PERSONNEL DIRECTIVES.
3. IF NECESSARY, VEHICLES WILL WAIT AT THIS LOCATION UNTIL DIRECTED BY BIO-CELL PERSONNEL TO ENTER THE BIO-CELL. ONLY ONE VEHICLE WILL BE UNLOADED AT A TIME.

EXISTING FACILITY LAYOUT AND TRAFFIC FLOW DIAGRAM
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 30 60 Feet
0 10 20 Meters
Map Projection: WGS 84 UTM Zone 13N
N

Material Transport Truck
Material Loading/Unloading Path
Perimeter Fence
Fort Bliss Roads
Working Surface Boundary

Revisions

No.	Date	Description

January 2018 | Figure II.2

GENERAL TOPOGRAPHIC MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

Michael A. Frisch
3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 1,500 3,000 Feet
0 475 950 Meters
N

Map Projection: WGS 84 UTM Zone 13N

- Non-perennial Streams
- Storm Water Detention Ponds
- Bio-cell
- Surface Contours (masl)
- Fort Bliss Boundary

Revisions

No.	Date	Description

January 2018 | **Figure II.3**

DETAILED TOPOGRAPHIC MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

Michael A. Frisch
3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 100 200 Feet
0 30 60 Meters
N
Map Projection: WGS 84 UTM Zone 13N

Surface Contours (masl)
Non-perennial Streams
Structure
500 ft Buffer
Storm Water Detention Ponds
Bio-cell
Fort Bliss Boundary

Revisions

No.	Date	Description

January 2018 | **Figure II.4**

AERIAL PHOTOGRAPH MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

Michael A. Frisch
3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 1,200 2,400 Feet
0 380 760 Meters
N
Map Projection: WGS 84 UTM Zone 13N

Bio-cell
1 mile Buffer
Fort Bliss Boundary

Revisions

No.	Date	Description

January 2018 | **Figure II.5**

LANDUSE MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 1,250 2,500 Feet
0 360 720 Meters
N
Map Projection: WGS 84 UTM Zone 13N

- Schools
- Highway
- Bio-cell
- 1 mile Buffer
- Industrial/Commercial
- Recreation
- Residential
- Landing Strip
- Fort Bliss Boundary

Revisions

No.	Date	Description

January 2018 | **Figure II.6**

FEMA 100-YEAR FLOODPLAIN MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

8-29-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI Federal Emergency Management Agency (FEMA), 2004-01-22 from file titled: 100-Year Floodplains. This shape file was created by FEMA and used by Fort Bliss in the BRAC 2005 process to delineate the flood zones within El Paso County. The FEMA name for the metadata file is: 99009C19980913_metadata.htm. Larger Work Citation: FEMA, 2000-05-03, Title: Digital Flood Insurance Rate Map Database, Flood County, USA, Washington, DC,, www.msc.fema.gov. Converted georeferenced GIS file to IVT specifications 2004-01-22; Dallas Bash, Directorate of Environment, Conservation Division, Civ/GIS Program Manager.
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 1,250 2,500 Feet
0 350 700 Meters
N
Map Projection: WGS 84 UTM Zone 13N

- Railroad
- Non-perennial Streams
- Highway
- Floodplain
- Storm Water Detention Ponds
- Bio-cell
- Fort Bliss Boundary

Revisions

No.	Date	Description
1	08/2018	FEMA Source

August 2018 | **Figure II.7**

1:24,000

Well Information

STATE WELL NUMBER	LATITUDE	LONGITUDE	WELL DEPTH (ft)	SURFACE ELEVATION (ft-msl)	OWNER	TYPE
4905914	31.88626944	-106.4012417	1145	3917	EL PASO WATER UTILITIES PUBLIC SER	Water Withdrawl
4913203	31.85576667	-106.4219444	860	3880	EL PASO WATER UTILITIES PUBLIC SER	Water Withdrawl
4913202	31.87020833	-106.4233917	814	3885	EL PASO WATER UTILITIES PUBLIC SER	Water Withdrawl
4905804	31.88494722	-106.4229361	790	3908	EL PASO WATER UTILITIES PUBLIC SER	Water Withdrawl
4905918	31.884721	-106.389444	940	3920	EL PASO WATER UTILITIES PUBLIC SER	Water Withdrawl
4913217	31.86244722	-106.4223111	1160	3889	EL PASO WATER UTILITIES PUBLIC SER	Water Withdrawl
4913307	31.85909235	-106.4055348	812	3897	FORT BLISS US ARMY	Water Withdrawl
4913311	31.86950833	-106.4062	812	3899	FORT BLISS US ARMY	Water Withdrawl
4913303	31.86988056	-106.3902389	780	3910	FORT BLISS US ARMY	Water Withdrawl
4913312	31.85878456	-106.3900079	935	3905	FORT BLISS US ARMY	Water Withdrawl
4905904	31.88434722	-106.3897	834	3920	FORT BLISS US ARMY	Water Withdrawl
4906701	31.88439688	-106.3690925	816	3944	FORT BLISS US ARMY	Water Withdrawl
4914101	31.87065231	-106.3726042	818	3960	FORT BLISS US ARMY	Water Withdrawl
4913313	31.86928385	-106.3907366	945	3908	FORT BLISS US ARMY	Water Withdrawl

1. Well Information is from TCEQ (https://www.tceq.texas.gov/gis/download-tceq-gis-data/) and DPW-E.
2. Wells identified are ones closely adjacent to the registration boundary.

WATER WELL LOCATION MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 1,250 2,500 Feet
0 350 700 Meters
N
Map Projection: WGS 84 UTM Zone 13N

Wells
Railroad
Highway
500 ft Buffer
Bio-cell
Fort Bliss Boundary

Revisions

No.	Date	Description

January 2018 | **Figure II.8**

ROAD UTILIZATION MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 1,000 2,000 Feet
0 320 640 Meters
N
Map Projection: WGS 84 UTM Zone 13N

- Railroad
- Bio-cell
- Highway
- 1 mile Buffer
- Fort Bliss Boundary

Revisions

No.	Date	Description

January 2018 | **Figure II.9**

Coordinates for Bio-cell Chain Link Corners				
	* Surface North	* Surface East	UTM Easting	UTM Northing
Corner #1	10699724.6	416284.8	368176.3	3527675.3
Corner #2	10699697.1	416581.8	368267.7	3527670.7
Corner #3	10699371.1	416561.8	368265.9	3527570.2
Corner #4	10699389	416264.2	368174.4	3527571.9

* Coordinates from Bio-cell Plan View Document

UTILITY ALIGNMENT MAP
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
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LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

8-29-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 25 50 Feet
0 9 18 Meters
N
Map Projection: WGS 84 UTM Zone 13N

Fort Bliss Roads
Contours (masl)
Working Surface
Top of Berm
Existing Fence
Structures

Revisions

No.	Date	Description
1	Aug 2018	Sec. View Reference

August 2018 | **Figure II.10**

1. Distances are approximate calculations using line measurements (planar). Slope of berm is not taken into account and calculated as a flat surface.

2. Surface contours were created using Lidar BAREEARTH raster data set (DPW-E).

BUFFER ZONE LAYOUT
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
MICHAEL A. FRISCH
96080
LICENSED
PROFESSIONAL ENGINEER
THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

3-16-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env. Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

0 25 50 Feet
0 8 16 Meters
N
Map Projection: WGS 84 UTM Zone 13N

Contours (masl)
Approximate Limits of Solid Waste Storage and Processing Area
Top of Berm
Existing Fence

Revisions

No.	Date	Description

January 2018 | **Figure II.11**

Attachment A - USDA Custom Soil Resource Report

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United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for Fort Bliss Military Reservation, New Mexico and Texas

Ft. Bliss Bio-cell

June 9, 2017

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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Soil Map.....9
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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

Map Scale: 1:637 if printed on A portrait (8.5" x 11") sheet.

N

Meters: 0 5 10 20 30

Feet: 0 30 60 120 180

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 13N WGS84

MAP LEGEND

Area of Interest (AOI)

- Area of Interest (AOI)

Soils

- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features

- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features

- Streams and Canals

Transportation

- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background

- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:24,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Fort Bliss Military Reservation, New Mexico and Texas
Survey Area Data: Version 11, Sep 26, 2014

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 24, 2014—Mar 29, 2014

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background

MAP LEGEND

MAP INFORMATION

imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Fort Bliss Military Reservation, New Mexico and Texas (NM719)			
Map Unit Symbol	**Map Unit Name**	**Acres in AOI**	**Percent of AOI**
21	Hueco loamy fine sand, 1 to 3 percent slopes	0.4	17.9%
22	Copia-Nations complex, 1 to 3 percent slopes	1.8	82.1%
Totals for Area of Interest		**2.2**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the

development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

Fort Bliss Military Reservation, New Mexico and Texas

21—Hueco loamy fine sand, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1yj2
Elevation: 3,900 to 4,200 feet
Mean annual precipitation: 8 to 10 inches
Mean annual air temperature: 62 to 66 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Hueco and similar soils: 85 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Hueco

Setting

Landform: Alluvial flats
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Eolian sands over alluvium

Typical profile

A - 0 to 5 inches: loamy fine sand
Bt1 - 5 to 18 inches: fine sandy loam
Bt2 - 18 to 30 inches: fine sandy loam
Bkm - 30 to 34 inches: cemented material
C - 34 to 80 inches: loam

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 10 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Available water storage in profile: Low (about 3.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: B
Ecological site: Sandy (R042XB012NM)
Hydric soil rating: No

22—Copia-Nations complex, 1 to 3 percent slopes

Map Unit Setting

National map unit symbol: 1yht
Elevation: 3,900 to 4,200 feet
Mean annual precipitation: 8 to 10 inches
Mean annual air temperature: 62 to 66 degrees F
Frost-free period: 200 to 240 days
Farmland classification: Not prime farmland

Map Unit Composition

Copia and similar soils: 50 percent
Nations and similar soils: 35 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Copia

Setting

Landform: Hillslopes, shrub-coppice dunes
Landform position (two-dimensional): Footslope, backslope, shoulder, toeslope
Landform position (three-dimensional): Side slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Eolian sands

Typical profile

A - 0 to 9 inches: loamy fine sand
C1 - 9 to 24 inches: loamy fine sand
C2 - 24 to 33 inches: loamy fine sand
C3 - 33 to 51 inches: loamy fine sand
C4 - 51 to 71 inches: loamy fine sand
2Btkb - 71 to 80 inches: loamy fine sand

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: More than 80 inches
Natural drainage class: Excessively drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): High (1.98 to 5.95 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 5 percent
Salinity, maximum in profile: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Available water storage in profile: Low (about 5.4 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7c

Hydrologic Soil Group: A
Ecological site: Deep Sand (R042XB011NM)
Hydric soil rating: No

Description of Nations

Setting

Landform: Alluvial flats
Landform position (three-dimensional): Rise
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Eolian sands over alluvium

Typical profile

A - 0 to 5 inches: loamy fine sand
2Bw1 - 5 to 16 inches: fine sandy loam
2Bw2 - 16 to 25 inches: fine sandy loam
3Bkm - 25 to 36 inches: cemented material
3Bk - 36 to 63 inches: loamy sand
4Btkb - 63 to 75 inches: loamy sand
5C - 75 to 80 inches: loamy fine sand

Properties and qualities

Slope: 1 to 3 percent
Depth to restrictive feature: 20 to 40 inches to petrocalcic
Natural drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Low to moderately low (0.01 to 0.06 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum in profile: 15 percent
Salinity, maximum in profile: Very slightly saline to slightly saline (2.0 to 4.0 mmhos/cm)
Available water storage in profile: Low (about 3.3 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7c
Hydrologic Soil Group: C
Ecological site: Sandy (R042XB012NM)
Hydric soil rating: No

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Attachment B – FBDPW-ED Record of Environmental Consideration

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RECORD OF ENVIRONMENTAL CONSIDERATION

PROJECT TITLE: Application for Texas Commission on Environmental Quality Type V Bio-cell Registration at Fort Bliss, Texas.

BRIEF DESCRIPTION: The Fort Bliss Bio-cell currently treats petroleum, oil, and lubricant (POL) contaminated soils/absorbents and oil/water separator sediment in order to achieve acceptable petroleum hydrocarbon levels for landfill disposal (see attached Figure). To eliminate landfill disposal of these wastes and pursue beneficial reuse, Fort Bliss is preparing a registration application for a Municipal Solid Waste Type V Facility that will be submitted to the Texas Commission on Environmental Quality (TCEQ) for review and approval. The bio-cell is owned and operated by Fort Bliss Directorate of Public Works (DPW).

Aforementioned, wastes are taken to the bio-cell and then mixed with wood chips, manure, and water to encourage bacterial growth that naturally break down contaminants into water and carbon dioxide. The operation is odorless and in an area protected from wind erosion. Successfully treated material is left clean to residential standards and can be reused for any purpose; while material not meeting residential standards must be disposed of in a local landfill. It is anticipated that most of the treated material will be brought back to its source area or used to fill areas on post that are needed to be brought to grade. All reuse of treated material will occur within the Texas area of the installation unless special permits are sought from the State of New Mexico.

A multi-discipline analysis of the environmental components determined that significant impacts to human or natural environmental from this action are unlikely.

- There are no designated sites within the bio-cell area that required remediation under the Defense Environmental Restoration Act (DERA). DERA identifies, investigates, and cleans up contamination and military munitions associated with past activities and DOD facilities, and no hazardous, toxic, radiological waste (HTRW) substances are known to have been released or disposed of on the bio-cell property.

- There has never been an installation of above or underground storage tanks containing fuels or hazardous materials at the bio-cell property.

- Encountering unexploded ordnance (UXO) during the operation of the bio-cell is highly unlikely since the area was never used for live fire or as an impact area. However, the bio-cell is within an active military installation and if any UXO is ever encountered, it will be disposed of by Explosive Ordnance Disposal (EOD) personnel per Fort Bliss approved procedures.

- A review of the bio-cell location has determined that no historical properties exist within or adjacent to the facility. However, two archaeological sites exist within a one mile radius of the facility. Any disturbance or fill operations planned for outside the boundaries of the bio-cell will require prior consultation with the Directorate of Public Works Environmental Division (ED). Additionally, if buried archaeological remains are encountered during the operation of the bio-cell, work in that area will stop, and the ED will be notified immediately (915-568-3782).

- Part of the application requires addressing wetlands per 30 TAC 330.61(m)(2). The Fort Bliss National Environmental Policy Act (NEPA) Specialist from DPW Environmental Division has reviewed all relevant site information and determined that no waters of the U.S. or wetlands exist within or directly adjacent to the bio-cell boundary which encompasses approximately 2.2 acres. No jurisdictional features exist within or directly adjacent to the bio-

cell boundary; therefore, completing a wetlands delineation under the guidance of the U.S. Army Corps of Engineers is not required.

- Part of the application requires addressing endangered or threatened species per 30 TAC 330.61(n). The Fort Bliss DPW ED Wildlife Biologist has reviewed all relevant site information and determined that the operation of the bio-cell will not result in the destruction or adverse modification of any critical habitat of endangered or threatened species, or cause or contribute to the taking of any endangered or threatened species.

Special Conditions:

- Treated material from the bio-cell will only be reused in Texas. Any reuse in New Mexico will require coordination with the New Mexico Environment Department.

- Prior to removing treated material from the bio-cell, the operator will submit a Work Order and Dig Permit detailing the location that the treated material will be taken to. No reuse is permitted until the appropriate reviews have been submitted and approvals obtained.

ANTICIPATED DATE AND/OR DURATION OF PROPOSED ACTION: This action will begin as soon as the permit is issued which will be in force indefinitely.

REASON FOR USING A RECORD OF ENVIRONMENTAL CONSIDERATION: This project falls within the scope of impacts addressed in the *Fort Bliss, Texas and New Mexico, Mission and Master Plan Supplemental Programmatic Environmental Impact Statement* (SEIS), the Record of Decision (ROD) which was signed 30 April 2007. The SEIS includes an evaluation of impacts to the natural and human environment associated with the changing and expanding mission at Fort Bliss to include the management of hazardous and toxic materials. This includes land use changes that support the bio-cell.

SIGNATORIES:

Proponent:

Rafael D. Corral — July - 10 - 2017

Rafael D. Corral, Ph.D.
Acting Compliance Branch Chief
Environmental Division
Directorate of Public Works
Fort Bliss, TX 79916

Date

Fort Bliss Environmental Coordinator:

Sylvia A. Waggoner — 12 Jul 2017

Sylvia A. Waggoner
Supervisory Environmental Engineer
Acting Division Chief
Environmental Division
Directorate of Public Works
Fort Bliss, TX 79916

Date

ENCLOSURE: Figure of the bio-cell location with one-mile radius for resource reviews.

Figure: Location of the Bio-cell and one-mile Radius Area for Resource Review.

FORT BLISS BIO-CELL
TYPE V MSW REGISTRATION APPLICATION

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STATE OF TEXAS
MICHAEL A. FRISCH
96080
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THE THRIVAL COMPANY (THRIVAL SCHOOL)
F-15502

8-29-18

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1.0 SITE DEVELOPMENT PLAN

30 TAC §330.63(a)

In accordance with 30 Texas Administrative Code (TAC) §330.63(a), the Site Development Plan (SDP) includes criteria used in the selection and design of the existing facility that provides for safeguarding health, welfare, and physical property of individuals and the environment. The criteria include geology, soil conditions, drainage, land use, zoning, adequacy of access roads, and other considerations specific to the proposed facility. As discussed in Part II, the bio-cell is located within the Tularosa Basin to the north and the Hueco Bolson aquifer to the south and soils consist of Copia-Nations complex and Hueco loamy fine sand.

The existing drainage pattern onsite retains precipitation that falls upon the bio-cell working surface and the area that slopes upward from the working surface to the top of the berm. All drainage that contacts the waste processing operation is retained inside the bio-cell. Precipitation retained within the bio-cell drains southward and collects in the leachate trench located immediately south of the southern border of the bio-cell working surface. The facility is constructed, maintained and operated to manage all precipitation that occurs during the peak discharge of a 24-hour, 25-year event. All remaining surfaces drain and discharge off-site, and are not impacted by the waste processing conducted at the facility.

Land use in the project area is predominately associated with similar types of activities, such as the Fort Bliss Landfill located immediately north of the bio-cell. The bio-cell will occupy at total of 2.3 acres within the fenced boundary, which includes a working surface of 0.43 acres. The access roads to the bio-cell are used exclusively for the bio-cell.

2.0 GENERAL FACILITY DESIGN

30 TAC §330.63(b)

2.1 Facility Access

§330.63(b)(1)

Figure II.2 of Part II shows the site access to the bio-cell. The entire boundary of the facility is bordered by other Fort Bliss property. There is no access to the adjacent areas afforded to the public within the Fort Bliss military installation, so there is no potential for non-facility personnel

to gain access into the bio-cell. The bio-cell will perform periodic monitoring of the perimeter fence to ensure site access remains restricted, in accordance with Part IV, Section 13.0.

The northwest corner is the main entrance for the bio-cell. The 20-foot wide gravel road entrance will be the only access point for ingress and egress for material transport trucks loading and unloading material at the facility. A lockable 8 ft. x 20 ft. dual swing gate controls access to eliminate site access during non-operating hours. During operating hours, the fence may remain open, under supervision of facility personnel working in the bio-cell or in the office. Bio-cell personnel will not allow any unauthorized entry or deposition of unauthorized waste or materials of any kind. A sign indicating the site hours, days of operation, and the registration number will be placed at the main entrance. Additional 8 ft. x 20 ft. dual swing gates exist along the northeast corner of the facility; however, these access points will not be used by facility personnel during normal operations.

2.2 Waste Movement

30 TAC §330.63(b)(2)

Soil and absorbents and dried oil/water separator sediments from various Fort Bliss locations are received at the Hazardous Waste Field Services' waste yard in varying numbers and sizes of containers, depending on the type and volume of waste. It will often require waste from multiple events (i.e., spills or oil/water separator cleanouts) to fill a 20-yard roll-off. When waste from an event is received at the waste yard, all waste containers from that event will be sampled to make a composite sample of that event. The waste from that event will be placed in the roll-off. The composite sample will be stored at 0 to 6 degrees C until 1) it can be extracted at the laboratory within the 14-day hold time or 2) the roll-off is filled with waste from subsequent events, whichever is shorter in duration. If waste from that event fills or completes a roll-off, within the time required to meet the hold time of the first event that contributed to that roll-off, all composite samples from that roll-off will be used to create a volume-proportionate roll-off composite (composite of a composite) sample that is sent to the lab for analysis. If a roll-off is not filled in time for the first contributing event's composite sample to meet the 14-day extraction hold time, a volume-proportionate composite (composite of a composite) sample of that partial roll-off will be created and sent to the lab for analysis. Waste

from subsequent events may be used to fill a partially full roll-off, provided that the same sampling and analysis protocol is used. Roll-off contaminant concentrations will be calculated from composite sample analyses and their respective waste volumes. Event waste volumes, container volumes and numbers, windrow numbers, sample dates, sample results, and roll-off concentrations will be logged to track wastes and accurately calculate the COC concentrations in each full roll-off. All samples must be stored/transported in a refrigerator or ice-filled cooler at all times. All samples will be analyzed for metals, TPH, Benzene and PCBs as shown below and in Attachment A of Part III.

~~Waste will be accumulated and sampled at two off-site locations before it is transported to the bio-cell. Soil and non-crystalline absorbents contaminated with petroleum, oil, and lubricants (POL) from all over the base will be received in various containers at Hazardous Waste Field Services' waste yard and accumulated in 20-cubic yard roll-offs. Pride Industries will remove sediments from oil-water separators in various locations around the base and transport these sediments to their drying pads for drying. Once the sediments are no longer saturated with water, they will be accumulated in 20-cubic yard roll-offs. At both Hazardous Waste Field Services and Pride Industries, respective wastes will be accumulated until the 20-cubic yard container is full of waste. At this point, the waste will be weighed, sampled and analyzed as follows:~~

- TCEQ Method 1005 for Total Petroleum Hydrocarbons (TPH);
- EPA Method 6010B for RCRA Total Arsenic, Barium, Cadmium, Chromium, Lead, Selenium, and Silver;
- EPA Method 7471A for Total Mercury;
- EPA Method ~~SW 846/~~8021B or 8260 for Benzene; and
- EPA Method 1668A or 8082 for Total Polychlorinated Biphenyls (PCBs).

Analytical results from each container of waste will be compared against Tier 1 Residential Soil critical PCLs for all COCs (see Part III Attachment A). A waste classification will be made in accordance with EPA Method 1311 to facilitate the disposal of the material at an approved off-site facility if incoming waste material cannot be processed to meet the Tier I Residential Soil critical PCLs for all COCs listed in Attachment A. A detailed description of the sampling and

recording protocol is described in Part IV, Section 6.0.

Once analytical results have been determined for a roll-off, the waste must be dispositioned according to the "Generator" section of Figure III.1. One of the following three disposition options must be selected:

- As denoted by block "A" in Figure III.1, waste that exceeds the PCLs for PCBs or metals, or contains hazardous concentrations of any COCs, will be taken to or retained at Hazardous Waste Field Services' waste yard and subsequently transported to the required landfill per waste disposal regulations;
- As denoted by block "B" in the "Generator" section of Figure III.1, waste with TPH or benzene greater than the Tier I Residential Soil critical PCLs and PCBs or metals less than the Tier I Residential Soil critical PCLs ~~will~~ may be transported to the bio-cell for bio-treatment; and
- As denoted by block "C" in Figure III.1, waste with all COCs less than the Tier I Residential Soil critical PCLs will ~~bypass the bio-cell and be transported to Pride Industries' fill staging area.~~ remain in the waste yard until it receives DPW-Environmental review and approval to be used as fill within the Texas area of the installation. From there, it will be taken to Pride's fill staging area.

POL (petroleum, oils, and lubricants) includes diesel fuel and gasoline; however, waste volumes from diesel spills far exceed waste volumes from gasoline. Because gasoline spills are characterized as a toxic hazardous waste, gasoline-contaminated waste must be managed separately from all other POL-contaminated wastes. The waste yard is very careful to ensure that wastes from gasoline spills are segregated, labeled, and disposed of as hazardous waste. As a backup measure, composite sampling of the roll-offs will identify, via total benzene concentration, if any gasoline-contaminated waste is present. Wastes that exceed total benzene concentration of 10 mg/kg will be labeled and disposed of as hazardous waste. Likewise, wastes that exceed any total metal concentration (As, Ba, Cd, Cr, Hg, Pb, Se, or Ag) of 20 times its respective TCLP concentration will be labeled and disposed of as hazardous waste.

Roll-offs that are determined to be eligible for treatment at the bio-cell will be transported from the waste yard to the bio-cell. The arithmetic average amount of waste that will be received at the bio-cell will be approximately 5.5 cubic yards per operating day. However, waste will most

commonly be received in 20-cubic yard containers. The bio-cell will accommodate the incoming waste on an as needed basis provided that adequate space is available at the facility and the maximum annual waste quantity of 2,000 cubic yards is not exceeded. Although at least 10% of the incoming waste must be reused, it is intended that 100% of incoming waste will be reused as fill on base. Waste volumes that are processed at the bio-cell will be recorded and tracked to determine if waste was treated to reuse standards. Upon completion of processing each windrow, whether successfully or unsuccessfully treated, reuse percentage will be calculated by dividing the volume of waste treated to reuse standards by the total volume of waste that was processed by the bio-cell. Figure I.4 shows the end use locations in uncolored/unshaded areas for the treated soil that meets the 0.5-acre Tier I Residential Soil critical PCLs, as denoted by block "D" of Figure III.1 in Part III. Reusable material will serve as fill for various uses, including, but not limited to, road-based excavations and building structures.

Figures II.2 of Part II and III.1 show how the incoming waste will be brought to the bio-cell by material transport trucks and off-loaded at one or more of the six available windrow locations. Waste unloading is expected to take less than two hours. As such, no congestion issues are expected to be encountered due to ingress and egress of material transport trucks. In the unusual event that queuing is necessary, incoming material transport trucks will be able to line up on the gravel access road outside the bio-cell fence without any impact to operations.

As necessary, wood chip and manure storage areas will be replenished. The amounts of each admixture used will fluctuate based on the operational needs of the bio-cell. It is expected that the admixture areas will contain 50 to 100 cubic yards of each material. If required, fertilizer and microbes will be stored inside the butler building in bags and bottles, respectively.

A Department of Defense (DD) Form 1348-1A will accompany each waste load that is transported to the bio-cell in order to document the material source. A copy of this form is included in Part IV, Attachment A. Bio-cell personnel will review each waste load to ensure that it is from an acceptable feedstock source, contains no rocks greater than four inches in diameter and contains levels of trash that will not interfere with the composting process. They will also review the analytical results to ensure that the waste meets the criteria established by block "B" in Figure III.1. Bio-cell personnel will concurrently complete a Feedstock Checklist Form.

After acceptance by bio-cell personnel, waste will be unloaded to one of six available windrow locations. Bio-cell personnel will assist transporters in unloading the waste as necessary.

At least two 20-cubic yard loads of waste will be required to construct a windrow. Although not required, a windrow will typically be constructed from two loads of the same type of waste, i.e., soil/absorbent or dried OWS sediment. Once accumulated in sufficient quantity, typically 40 cubic yards, waste will be ready to be mixed with admixtures to form a windrow. Before admixture addition, the waste will be spread out in a layer approximately 1.5 feet thick. Wood chips and manure are added to the waste, typically in a 4:1:1 waste: wood chips: manure ratio. It is important to note that this ratio may be altered as necessary to allow for variations in waste material and operational flexibility.

Admixtures are critical to the bio-treatment process. Vegetative debris, such as wood chips, are added to increase the bulk porosity of the mixture. The resulting macropores, which are spaces 0.075 to 0.5 mm in diameter, store air and allow oxygen and carbon dioxide exchange to replenish oxygen consumed by the microorganisms that biodegrade the POL contaminants. Vegetative debris include wood chips that do not exceed 2-inches in length and more than 1/2-inch in any other dimension. Other vegetative debris may include landscape wastes (e.g., grass, brush, etc.) and demolition debris that is properly mulched if the wood has not been treated with any wood preservatives. The second type of admixture will be manure from off-post horse stables. Manure will serve as a catalyst providing the necessary nutrients and microbial populations to facilitate the bio-treatment process. An alternative or addition to the manure will be a standard agricultural fertilizer that contains a nitrogen/phosphorous mixture. Finally, a liquid containing microbes may be added to the windrows to augment microorganism populations and promote bio-treatment. All admixtures, waste, and moisture addition will be thoroughly mixed using the skid steer (Bobcat) or other appropriate equipment to establish a homogeneous windrow.

After each windrow has been placed, initial measurements will be taken to record pretreatment conditions. The following analysis will be performed for each windrow:

- TCEQ Method 1005 for Total Petroleum Hydrocarbons (TPH); and

- EPA Method SW 846/8021B for Benzene.

The windrow will be covered with a tarp and secured by sandbags in order to prevent moisture loss and wind-blown dust. Once the waste is accepted, placed in a windrow, sampled, and covered, the bio-treatment process will commence. The following narrative describes the bio-treatment process that will take place at the facility.

- **Phase I - Active Bio-treatment**
  The initial bio-treatment phase is the most active during this process. Lasting approximately four weeks, the windrow will be turned every seven days, or as determined by temperature and moisture measurements. Ideal temperatures will be between 130°F and 150°F near the center of the windrow. If the temperature falls below range, additional admixtures will be added to increase the microbial populations. When temperatures exceed 150°F, the windrow will be mixed to lower the temperature of the windrow. Moisture will be maintained between 40% and 60%. When moisture falls below 40%, water will be added to bring the moisture content to 60%.

- **Phase II - Active Bio-treatment**
  The continued bio-treatment process will proceed for a minimum of four additional weeks after Phase I is completed. The windrow will be mixed approximately every 7 days. Temperature and moisture content monitoring will continue in accordance with the parameters specified in Phase I.

- **Phase III Batch Curing and Maturation**
  After approximately eight weeks, active bio-treatment will slow to a more stable rate. Phase III will last approximately one to three months, depending on the observed temperatures. The windrow will be mixed approximately every 7 days. Temperature and moisture content monitoring will continue in accordance with the parameters specified in Phase I.

Monitoring of moisture and temperature will occur at an established frequency (see Part IV, Section 6.0) to ensure proper biological conditions exist while ensuring temperatures are held in check to prevent the development of a fire. After the windrow has completed month 1 of Phase

III, the windrow will be sampled for TPH and benzene. Six grab samples will produce one composite sample that will be analyzed for TPH and benzene. Each grab sample will be from within the core and equally spaced along the entire length of the windrow. As denoted by block "D" in Figure III.1, if results indicate that TPH and benzene are below Tier 1 Residential Soil critical PCLs, bio-treatment is completed and the material is ready to be used as general fill within the Texas area of the installation unless State permits are sought for use in the NM portions of Fort Bliss. All disturbance or fill operations not within the bio-cell facility itself will require environmental review IAW normal Fort Bliss procedures. As denoted by block "B" in the "Processing" section of Figure III.1, if results indicate that TPH and benzene are above Tier 1 Residential Soil critical PCLs, a decision must be made to dispose of the material at the local landfill or proceed to the next decision, as denoted by blocks "E" and "F", respectively. As denoted by block "F" in Figure III.1, material not eligible for disposal at the local landfill may either be transported back to Hazardous Waste Field Services waste yard for ultimate disposal at a landfill (other than the local landfill) or remain at the bio-cell for continued bio-treatment. Bio-treatment and subsequent sampling and analysis of a windrow may continue at the bio-cell for as long as is deemed necessary by bio-cell operations personnel.

Processed material with contaminant concentrations above the 0.5-acre Tier I Residential Soil critical PCLs, that is transported to the waste yard, will be disposed of at a hazardous waste landfill.

Processed material with contaminant concentrations equal to or above the 0.5-acre Tier I Residential Soil critical PCLs may be directly transported to and disposed of at the City of El Paso Landfill (Clint, TX) or Camino Real Landfill (Sunland Park, NM), as denoted by the block "E" "YES" pathway in Figure III.1. These local MSW landfills, located within 50 miles of the bio-cell, can accept waste with COC concentrations that do not exceed the concentrations listed in Table 1 of §335.521(a)(1) and soils contaminated with POLs. TPH ranges of less than 600 mg/kg can be accepted by these landfills as daily cover. TPH ranges greater than or equal to 600 mg/kg but less than 1,500 mg/kg can be accepted into these landfills as special waste. TPH ranges of greater than or equal to 1,500 mg/kg cannot be accepted by these landfills. Camino Real Landfill also requires analysis of benzene, toluene, and xylenes.

The operation of the bio-cell is entirely outdoors, therefore adequate ventilation will not be a concern. As shown in the wind rose in Figure II.1, there is no dominant prevailing wind direction at the site. As such, emissions and odors from the bio-cell will be driven by the winds in most directions, depending on immediate weather conditions and seasonality. Because emissions are expected to be very low and there is at least 0.5 miles to the nearest populated areas, emissions will be too diffuse to detect by the time they reach any sensitive areas. If odors or emissions become bothersome to neighboring residents, the facility will actively process waste only when wind is not blowing from the east. Tarped windrows will not produce any odors or emissions. See Part IV, Section 22.0, for more information.

General construction details of the bio-cell are shown in Figure II.10 of Part II. Section views of Figure II.10 are shown in Figure III.2. Liner construction details are shown in Figure III.3. Leachate collection pipe and French drain details are shown in Figure III.4.

No sludge, oil, or grease will be stored at the facility.

2.3 Sanitation

30 TAC §330.63(b)(3)

The skid steer (Bobcat) is washed down with water after waste loading/unloading and windrow mixing. Because the working surface is porous and well drained, no surface cleaning or wash down will be required when a windrow is removed from the working surface. Before use, washing water is transferred from the rain water storage tank into one of the portable water tanks. The portable water tank is hauled to the working surface, where the water is pressurized and sprayed via a gasoline-powered pump and hose. Surface drainage to the facility, also known as run-on, is prevented by a two- to four-feet above grade berm encompassing all four edges of the working surface. Because the liner is impervious, the bio-cell is designed to contain and retain all materials placed in the bio-cell and any precipitation that falls therein. The surrounding berms and grading were designed to ensure that precipitation outside of the bio-cell is diverted and transported away from the bio-cell area. See Figure IIIB.1 in Attachment B for more information.

The entire bio-cell floor is comprised of compacted crushed fines. Therefore, the working

surface, which contains the windrows, and the admixture area, which stores manure and wood chips, will not be impervious, "washable" surfaces. Although the floor area surrounding and under the manure cannot be washed with water, it will be maintained in sanitary condition by use of good housekeeping practices including but not limited to: maintaining a neat and orderly storage pile; promptly sweeping up any manure spills or vacated floor space; keeping the manure tarped when not adding or removing material; and ensuring that the manure is not excessively aged to the point of no longer being useful.

All wash water used will drain southward and collect in the french drain and leachate ~~trench~~ standpipe located immediately south of the southern border of the bio-cell ~~working surface~~ floor and at the southwest corner of the bio-cell floor, respectively. To prevent ponding on the working surface, collected trench water will be transferred via pump to the rain water tank as needed.

2.4 Water Pollution Control

30 TAC §330.63(b)(4)

As described in Section 2.3, wash water and precipitation are collected and stored via the leachate trench and rain water tank. This water is used for windrow moisture control and equipment wash down. These uses and high evaporation rates have prevented the need to have any excess water hauled from the site in 8 years of operation. In the rare event that excess water accumulates at the site, the water would be sampled and analyzed for arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, benzene, PCBs, TPH, fats, oils, and grease, and pH, in accordance with 30 TAC §330.203(c), prior to being hauled off and disposed at a permitted facility.

2.5 Endangered Species Protection

30 TAC §330.63(b)(5)

Section 15.0 in Part II describes that the bio-cell will not provide a negative impact on endangered and threatened species or their habitat. As a result, no specific controls need to be implemented by the facility.

3.0 FACILITY SURFACE WATER DRAINAGE REPORT

30 TAC §330.63(c); §330.303

The bio-cell complies with the requirements of 30 TAC §330.303 and is not a landfill.

The bio-cell working surface spans 0.43 acres and is constructed as follows (from top to bottom): 36 inches compacted crushed fines; PE-12 geotextile fabric; 40~~20~~-mil HDPE geomembrane liner; PE-12 geotextile fabric; and 6 inches compacted clay/caliche ~~subgrade~~. The working surface sits three to six feet below grade. A berm, ranging in height from two to four feet above grade and three- to four-feet above the working surface, encompasses all four edges of the working surface. Because the liner is impervious, the bio-cell is designed to contain and retain all materials placed in the bio-cell and any precipitation that falls therein. The surrounding berms and grading were designed to ensure that precipitation outside of the bio-cell is diverted and transported away from the bio-cell area.

Figures III.2, III.3, III.4 and II.10 of Part II show the construction details and drainage area of the bio-cell, respectively. The bio-cell is designed, constructed, maintained and operated to collect and retain precipitation from a 25-year, 24-hour rainfall event, as discussed below and shown by the hydrologic analysis in Attachment B. The rectangular bottom of the bio-cell measures 140 by 135 feet, so the surface area is 18,900 square feet. The height of the bio-cell berms will range from three to four feet above the floor of the working surface. Therefore, the total volume of the bio-cell, when empty, is 56,700 cubic feet (424,116 gallons). Assuming 560 cubic yards (15,120 cubic feet) of windrows and admixtures with a porosity of 33 percent (4,990 cubic feet) are present on the working surface during a rainfall event, the available volume of the bio-cell would be 46,570 cubic feet (348,341 gallons). According to the National Weather Service's Technical Paper #40 (Rainfall Frequency Atlas of the U.S., 1961), Fort Bliss may receive 3.5 inches of rain during a 25-year, 24-hour rainfall event. Assuming that rain that falls on the top of the berm, internal side slopes, and working surface of the bio-cell would be retained in the bio-cell, the collection area would measure 198 by 212 feet. This would result in an accumulation of approximately 12,243 cubic feet of precipitation (91,578 gallons), approximately 26 percent of the available holding capacity of the bio-cell. This hydrologic analysis clearly shows that the bio-cell can readily contain a 24-hr, 25-year rainfall event.

4.0 WASTE MANAGEMENT UNIT DESIGN

30 TAC §330.63(d)

The bio-cell is designed for efficient material processing. Windrows will be mixed as soon as the minimum amount of waste (40 cubic yards) is accumulated at one of six windrow locations. It is anticipated that each windrow will occupy the working surface for a minimum of three months and up to six months or longer as deemed by the bio-cell operators until desired treatment is achieved. Up to 100 cubic yards each of wood chips and manure will be stored on the working surface for an unspecified period.

An odor control spray system may be used to offset any offensive odors that may originate from facility operation. An environmentally friendly surfactant may be used to control fly and mosquito populations.

The majority of the working surface serves as the processing area for the bio-cell. Sections 2.4 and 3.0 of Part III describe water pollution control and containment, respectively.

The following features do not apply to this facility:

- ***Incineration units.*** The bio-cell does not use controlled flame combustion as part of the waste treatment process.
- ***Surface impoundments.*** The bio-cell is not designed to treat an accumulation of liquids, such as an aeration basin or lagoon.
- ***Landfill units***. The bio-cell is not a landfill as defined in 30 TAC §330.3(75).
- ***Type V mobile liquid wash processing units.*** The bio-cell does not process liquid waste.
- ***Type IX energy, material, gas recovery for beneficial use, or landfill mining waste processing units.*** The bio-cell does not create renewable energy or process landfill mined waste.
- ***Composting units.*** The bio-cell does not use the processed material as a soil amendment, artificial top soil, growing amendment, or as a vegetative establishment catalyst.
- ***Type VI waste processing demonstration facilities***. The bio-cell does not process liquid and is not connected with an accredited university.

5.0 GEOLOGY REPORT

30 TAC §330.63(e)

The bio-cell is not a landfill nor compost unit, therefore, a geology report is not required, unless otherwise requested by the executive director of TCEQ.

6.0 GROUNDWATER SAMPLING AND ANALYSIS PLAN

30 TAC §330.63(f)

The bio-cell is not a landfill, therefore, a groundwater sampling and analysis plan is not required, unless otherwise requested by the executive director of TCEQ.

7.0 LANDFILL GAS MANAGEMENT PLAN

30 TAC §330.63(g)

The bio-cell is not a landfill; therefore, a landfill gas management plan is not required.

8.0 CLOSURE PLAN

30 TAC §330.63(h); 30 TAC §330.459; 30 TAC §330.461

This closure plan has been prepared in accordance with Subchapter K of Chapter 330 for MSW storage and processing units, specifically 30 TAC §330.459 and 30 TAC §330.461. During closure activities at the bio-cell, all waste material, waste residue, and admixtures will be taken off-site and disposed or relocated in accordance with all rules and regulations. All buildings, tanks, machinery, tarps, and other facility supporting appurtenances will be removed from within the facility boundary. The crushed fines, geotextiles, HDPE liner, compacted subgrade and standpipe will be removed and disposed in accordance with all rules and regulations.

If during demolition activities, there is evidence that seepage below the HDPE liner has occurred, FBDPW-ED will immediately notify the executive director and coordinate with TCEQ to determine any requirements for further investigation to establish the nature and extent of the release and conduct any required remediation measures. The final stage of closure is removal of the perimeter fence, gates, and signs from the site.

The bio-cell closure activities will be completed within 180 days following the most recent completed processing of waste unless otherwise directed or approved in writing by the executive director. No later than 90 days prior to the initiation of closure process, FBDPW-ED will provide for final facility closure through a public notice in the newspaper(s) of largest circulation in the vicinity of the facility. This public notice will provide the name, address, and physical location of the facility, the registration number, and the last date of intended receipt of waste. FBDPW-ED will provide an adequate number of copies of the approved final closure and post-closure plans for public access and review. FBDPW-ED will also provide written notification to the executive director of the intent to close the facility and place this notice of intent in the operating record.

Upon submission of the notice of intent to the executive director, FBDPW-ED will post a sign at the main entrance notifying persons who may use the facility, the date of closing and the prohibition against further receipt of waste materials after the identified closure date. The existing perimeter fence will remain in place during closure activities to prevent unauthorized dumping at the facility. No wastes will remain at the closed facility, therefore, within 10 days after completion of final closure activities of the bio-cell, FBDPW-ED will submit to the executive director, by registered mail, a certification and all applicable documents, signed by an independent licensed professional engineer, verifying that final facility closure has been completed in accordance with the approved closure plan. Additionally, a request for voluntary revocation will also be submitted to the executive director within 10 days after completion of final closure activities.

9.0 POST-CLOSURE PLAN

30 TAC §330.63(i); 30 TAC §330.463

The bio-cell will not contain municipal solid waste on-site after closure activities are completed. Therefore, the facility is not subject to post-closure care activities described in 30 TAC §330.463.

10.0 COST ESTIMATE FOR CLOSURE AND POST-CLOSURE CARE

30 TAC §330.63(j); 30 TAC §330.501; 30 TAC §37.8001

30 TAC §330.501 states that facilities that are required to have financial assurance prepare

closure and post-closure cost estimates. However, in accordance with 30 TAC §37.8001, financial assurance requirements do not apply to federal government entities whose debts and liabilities are debts and liabilities of the United States. As such, the bio-cell is not required to provide closure and post-closure care cost estimates.

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Figures

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1. FILL WILL OCCUR WITHIN THE TEXAS AREA OF THE INSTALLATION UNLESS STATE PERMITS ARE SOUGHT FOR USE IN THE NEW MEXICO PORTIONS OF FORT BLISS. ALL DISTURBANCES OR FILL OPERATIONS NOT WITHIN THE BIO-CELL FACILITY ITSELF WILL REQUIRE ENVIRONMENTAL REVIEW IAW NORMAL FORT BLISS PROCEDURES.

2. WASTE SOURCES WILL BE COMPOSITE SAMPLED, ACCUMULATED IN 20-YARD ROLL-OFFS, AND ANALYZED, AND ROLL-OFF COC CONCENTRATIONS WILL BE CALCULATED AS DESCRIBED IN PART III, SECTION 2.2.

3. ADMIXTURES (WOODCHIPS, MANURE, FERTILIZER, AND MICROORGANISMS) WILL BE ADDED ON AN AS NEED BASIS.

4. WINDROWS WILL BE MONITORED FOR TEMPERATURE AND MOISTURE CONTENT.

5. WINDROWS WILL BE SAMPLED FOR TPH AND BENZENE ONLY.

6. LOCAL LANDFILLS CAN ACCEPT SOIL CONTAMINATED BY COCs THAT EXCEED THE CONCENTRATIONS LISTED IN TABLE 1 OF 335.521(a)(1) AND SOILS CONTAMINATED WITH POL. TPH RANGES OF < 600 mg/kg CAN BE ACCEPTED BY THE LANDFILL FOR USE AS DAILY COVER, ≥ 600 mg/kg BUT < 1,500 mg/kg CAN BE ACCEPTED INTO A SPECIAL WASTE TRENCH, AND ≥ 1,500 mg/kg SHALL BE REJECTED.

7. CAMINO REAL LANDFILL ALSO REQUIRES ANALYSIS OF BTEX.

PROCESS FLOW DIAGRAM
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
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F-15502

8-29-18

FOR PERMITTING PURPOSES ONLY

Data Source: DPW-Master Planning/Env Division/ESRI
Design: Lilia A. Lenhart
Drawn By: Mike Frisch, PhD, PE, CEM
Reviewed By: Mike Frisch, PhD, PE, CEM

Revisions

No.	Date	Description
1	Aug 2018	Edits to Generator Phase

August 2018 | **Figure III.1**

SECTION VIEWS
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

STATE OF TEXAS
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Reviewed By: Mike Frisch, PhD, PE, CEM

Revisions

No.	Date	Description
1	Aug 2018	Drawing Reference

August 2018 | **Figure III.2**

(A) BIO-CELL SECTION A (TYPICAL DETAIL)

SCALE N.T.S

(See Fig. II.10 for section locations and Fig. III.2 for detail)

(B) BIO-CELL SECTION B (TYPICAL DETAIL)

SCALE N.T.S

(See Fig. II.10 for section locations and Fig. III.2 for detail)

LINER CONSTRUCTION DETAIL

SCALE N.T.S

LINER CONSTRUCTION DETAIL
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

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Re-drawn By: Adrian Aguirre
Reviewed By: Mike Frisch, PhD, PE, CEM

Revisions

No.	Date	Description
1	Aug 2018	Drawing Reference

August 2018 | **Figure III.3**

BIO-CELL FRENCH DRAIN

SCALE N.T.S.

(See Fig. II.10 for section location)

BIO-CELL LEACHATE COLLECTION STANDPIPE

SCALE N.T.S.

(See Fig. II.10 for section location)

FRENCH DRAIN AND STANDPIPE SECTION VIEWS
FORT BLISS, TEXAS
BIO-CELL

TYPE V MSW REGISTRATION
FORT BLISS DPW-ENV. DIV.
EL PASO COUNTY, TX

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Reviewed By: Mike Frisch, PhD, PE, CEM

Revisions

No.	Date	Description

August 2018 | **Figure III.4**

Attachment A - 0.5 – acre Tier I Residential Soil PCLs

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0.5-Acre Tier 1 Residential Soil PCLs[1]

Chemical of Concern	^{Tot}Soil $_{Comb}$ (mg/kg)	^{GW}Soil $_{Ing}$ (mg/kg)	Critical PCL (mg/kg)[2]
Arsenic	20	5	5
Barium	8,100	440	440
Cadmium	52	1.5	1.5
Chromium (total)	33,000	2,400	2,400
Lead	500	3	3
Mercury	3.6	0.0078	0.0078
Selenium	310	2.3	2.3
Silver	97	0.48	0.48
TPH, TX1005, C6-C12	1,600	65	65
TPH, TX1005, > C12-C28	2,300	200	200
TPH, TX1005, > C12-C35	2,300	200	200
TPH, TX1005, > C18-C35	2,300	200	200
Benzene	120	0.026	0.026
PCBs	1.1	11	1.1

[1] Values based on September 10, 2014 Tier 1 Residential Soil PCLs. Values are subject to change.

[2] Critical PCL is the lesser of the $^{Tot}Soil_{Comb}$ and $^{GW}Soil_{Ing}$ PCLs for each Chemical of Concern.

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Attachment B - Hydrologic Analysis

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PURPOSE AND SCOPE

This surface water drainage report was prepared to demonstrate compliance of the bio-cell with 30 TAC 330.63(c) and 330.303.

PROPERTY DESCRIPTION

The bio-cell is a 0.43-acre, lined working surface that is constructed as follows (from top to bottom): 36 inches compacted crushed fines; PE-12 geotextile fabric; 40~~20~~-mil HDPE geomembrane liner; PE-12 geotextile fabric; and 6 inches compacted clay/caliche ~~subgrade~~. The working surface sits three to six feet below grade. A berm, ranging in height from two to four feet above grade and three to four feet above the working surface, encompasses all four edges of the working surface. Because the liner is impervious, the bio-cell is designed to contain and retain all materials placed in the bio-cell and any precipitation that falls therein. The surrounding berms and grading were designed to ensure that precipitation outside of the bio-cell is diverted and transported away from the bio-cell area.

CALCULATIONS

Figures III.2 and II.10 of Part II show the construction details and drainage area of the bio-cell, respectively. The bio-cell is designed, constructed, maintained and operated to collect and retain precipitation from a 25-year, 24-hour rainfall event, as shown by the following calculations:

Bio-cell volume:

Working surface length x Working surface width x Working surface depth (minimum)

(135 ft) x (140 ft) x (3 ft) = 56,700 ft^3

(56,700 ft^3) x (7.48 gal/ft^3) = 424,116 gal

Windrow and admixture volume:

Windrow and admixture volume x (1 – Windrow/admixture porosity)

$(560\ yd^3) \times (1 - 33\%/100\%) \times 27\ ft^3/yd^3 = 10{,}130\ ft^3$

$(10{,}130\ ft^3) \times (7.48\ gal/ft^3) = 75{,}775\ gal$

Available bio-cell volume:

Bio-cell volume – Windrow and admixture volume

$(56{,}700\ ft^3) - (10{,}130\ ft^3) = 46{,}570\ ft^3$

$(424{,}116\ gal) - (75{,}775\ gal) = 348{,}341\ gal$

Precipitation volume:

Collection surface length x Collection surface width x Precipitation (24-hr, 25-yr rainfall event)

Note that the collection surface includes the entire top of the berm, the internal side slopes, and the bio-cell working surface.

$(212.9\ ft) \times (198.7\ ft) \times (3.5\ inch) \times (1\ ft/12\ inch) = 12{,}338\ ft^3$

$(12{,}338\ ft^3) \times (7.48\ gal/ft^3) = 92{,}292\ gal$

Fraction of bio-cell volume occupied by precipitation:

Precipitation volume / Available bio-cell volume

$12{,}338\ ft^3 / 46{,}570\ ft^3 \times 100\% = 26\ \%$

From the above it follows that only 26 percent of the available bio-cell volume will be occupied by precipitation from a 24-hr, 25-yr rainfall event.

FORT BLISS BIO-CELL
TYPE V MSW REGISTRATION APPLICATION

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8-29-18

PART IV
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1.0 SITE OPERATING PLAN

30 TAC §330.65(a)

The Site Operating Plan (SOP) contains information about how FBDPW-ED will conduct operations at the bio-cell. The SOP represents the general instruction manual for facility management and personnel to operate the facility in a manner consistent with the approved design and the commission's rules to protect human health and the environment and prevent nuisances. The SOP will be maintained onsite throughout the life of the facility.

This SOP consists of the information required by Title 30, Texas Administrative Code (TAC), Chapter 330, Subchapter E: Operational Standards for Municipal Solid Waste Storage and Processing Units, 30 TAC §330.201 - §330.249. This SOP (sometimes called Part IV) includes provisions for facility management and operating personnel to meet the general and site-specific requirements of these rules.

2.0 FACILITY PERSONNEL

A site supervisor will maintain and operate the bio-cell. However, FBDPW-ED will have alternate personnel who can perform one or more of the duties identified below in case where the site supervisor is not available. The following are the qualifications/duties of the site supervisor.

- Have either a Class A or Class B level license in accordance with 30 TAC §30.213(a), and have the required experience in the type of operations occurring at the facility to include facility management and operational protocols.
- Create and document turn-in appointments for units/activities that plan to send allowable waste streams.
- Visually observe incoming waste loads to detect any unacceptable waste streams before it is unloaded.
- Direct vehicles to the appropriate unloading locations and provide assistance with unloading on an as needed basis.
- Review the incoming Department of Defense (DD) Form 1348-1A or similar. This form serves as an internal manifesting document to track transfer of ownership of materials and equipment. A blank form is included in Attachment A.

- Input received waste information into a soil management database to track its status during the entire waste processing duration.
- Ensure stockpile of admixtures (i.e., vegetative debris, manure, etc.) are in necessary quantities for processing.
- Determine the required waste, admixture, and moisture ratios for waste processing.
- Calibrate all monitoring and testing equipment in accordance with the manufacturer's recommendations.
- Place waste materials in the window area with the required admixture/waste ratios utilizing the necessary equipment.
- Monitor windrows for moisture and temperature levels in accordance with Section 6.3.1.
- Add water as necessary to maintain optimum moisture content of the windrow in accordance with Section 6.3.1.2.
- Mix windrows as necessary to promote even decomposition in accordance with Section 6.3.1.3 until desired levels are obtained.
- Maintain records of all measurements, samples, admixtures, and waste material received and tested.
- Collect and analyze samples in accordance with Section 6.3.2 once the windrow has obtained the proper TPH and benzene levels, based on experience and visual observation.
- Haul material off-site by loading a roll-off with the material after the windrow has reached the required PCL levels. See Section 6.0 for more information.
- Record all required information to document windrow has met required levels. Maintain records in accordance with Section 11.0. All information is recorded in the soil management database.
- Operate all on-site equipment.
- Serve as the bio-cell's emergency coordinator.
- Open and lock facility gates in accordance with posted operating hours.
- Observe FBDPW-ED safety operating procedures.

3.0 PERSONNEL TRAINING

Personnel training records will be maintained in accordance with 30 TAC §330.219(b)(2). Personnel operator licenses, issued in accordance with 30 TAC Chapter 30, Subchapter F, Municipal Solid Waste Facility Supervisors, will be maintained as required.

FBDPW-ED will ensure that the site supervisor is knowledgeable in the proper operation of a municipal solid waste facility and the current operational standards required by the TCEQ. The site supervisor will be experienced and will maintain either a Class A or Class B license as defined in 30 TAC §30.213(a). The required license may also be held by the supervisor's designee. The site supervisor will ensure that all personnel are properly trained and are operating the facility in accordance with this SOP and operational standards required by the registration and the TCEQ municipal solid waste regulations.

The site supervisor will be responsible for executing the safety program requirements of the facility. The site supervisor's responsibility includes providing training of any alternate personnel that may be temporarily support the facility and documenting and maintaining training records. Site specific training will be provided to all personnel by the site supervisor of his designee. The training will address activities, procedures, monitoring and equipment associated with the activities at this facility. All personnel involved at the facility will be given a tour of the entire facility to familiarize themselves with the location of fire extinguishers, telephones, emergency telephone number, and the location of safety equipment and any safety data sheets (SDS).

4.0 EQUIPMENT

Table 4-1 summarizes the equipment used at the facility. The equipment type, size, and function are also included. Equipment requirements for MSW acceptance and site support will vary in accordance with the method and scope of activities on site at any given time. Additional, or different units of equipment, may be provided as necessary to enhance operational efficiency. Sizes will vary with types and amounts of waste and work conducted on-site.

Table 4-1 Facility Equipment List

Equipment Type	Typical Specifications	Function
Bobcat Skid Steer Bucket Loader (or equivalent equipment)	0.8 cubic yards scoop; 1.0 cubic yards rounded	Spread and move material around the facility.
Rain Water Tank	10,000 gallons	Collect rain water for later use.
Water Buffalo Portable Water Tank	1,200 gallons	Transfer water from rain water tank for use in windrow moisture control and wash down.
Water Buffalo Portable Water Tank	300 gallons	
Portable Gas-Powered Pump	--	Transfer water from leachate trench stand pipe (French drain) to water tanks.
Portable Gas-Powered Power Washer	--	Wash down.

Equipment may change, as necessary, to adequately maintain the facility and meet the operational standards required by the regulation in accordance with federal, state, and local agencies. Equipment and vehicles may be owned, rented, leased or loaned. In addition to the equipment listed in Table 4-1, a variety of other operations, service and support vehicles and equipment may be used at the facility to conduct day to day operations. These may include miscellaneous pickups, vans, and other light utility vehicles, as well as instruments. Safety and training equipment will be available at the facility as necessary to support the various operations.

5.0 FACILITY INSPECTIONS AND MAINTENANCE

Table 5-1 outlines the facility inspection and maintenance list. The site supervisor will perform the tasks as well as retain inspection documentation in the operating record. All scheduled vehicle maintenance activities (including but not limited to oil and other fluid changes) will be done off-site at an authorized facility. Maintenance reports, inspection logs, and corrective action reports will be placed in the site's operating record. Sanitation and litter control procedures, as well as access road

inspections, will be followed daily. Equipment that contacts waste will be washed after use, in accordance with Section 22.0.

Table 5-1 Facility Inspection and Maintenance List

Item	Task	Frequency
Fence/Gates	Inspect perimeter fence and gates for damage. Make repairs if necessary.	Monthly
Litter and Windblown Waste	Police working area, access roads, entrance areas, and perimeter fence for loose trash. Cleanup as necessary.	~~Twice per week~~ Daily
Waste Spilled on Route to the Facility	Ensure all waste material and associated tracking is controlled in accordance with Sections 19.0 and 20.0.	Daily on days the facility receives waste.
Facility Access Roads	Inspect facility access road for damage from vehicle traffic. Maintain as needed.	~~Twice per week~~ Daily
Facility Signs	Inspect all facility signs for damage, general location, and accuracy of posted information.	Weekly
Odor	Inspect the perimeter of the facility to assess the performance of facility operations to control odor.	Weekly

6.0 WASTE ACCEPTANCE AND ANALYSIS

30 TAC §330.203

6.1 Sources and Characteristics of Waste

Wastes delivered to the bio-cell will be exclusively from Fort Bliss-owned property located in El Paso county Texas and Dona Ana and Otero counties in New Mexico.

Wastes that will be processed at the bio-cell will include:

- Soil and non-crystalline absorbents contaminated with petroleum, oil, and lubricants (POL); and
- Dried oil-water separator sediment.

Various military ~~organizations~~ activities conducted in Texas and New Mexico generate the wastes that will be processed by the bio-cell. POL-contaminated soil and absorbents will originate from

maintenance facilities, training areas, petroleum storage tanks, and storm water detention basins located throughout the installation. Maintenance facilities which are scattered throughout the installation will produce sediment from their oil-water separators, which will be subsequently dried at Pride Industries' drying pads and consolidated with soil and absorbents at the waste yard ~~and eventually transported to the bio-cell~~.

Waste material will consist of special waste as defined in 30 TAC §330.3(148)(N). Material that will be reused will have analytical results that are below the 0.5-acre Tier I Residential Soil critical PCLs (see Attachment A in Part III) for the following Chemicals of Concern (COCs): arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, Total Petroleum Hydrocarbons (TPH), benzene, and Polychlorinated Biphenyls (PCBs). The processed waste that is below the critical PCL from all identified COCs will meet the definition of recyclable material found at 30 TAC §330.3(122) and will not be considered special waste. However, processed material may still be considered special waste when TPH and/or benzene concentrations are not reduced below the critical PCLs. Table 2-1 in Part II provides a summary of the sources of waste and each of their COCs.

The facility will not be able to process all waste material generated at Fort Bliss. No regulated hazardous waste will be accepted at the facility for processing. If metals or PCB concentrations exceed the critical PCLs, that waste stream will also be rejected. The bio-cell can only reduce the concentration of TPH and benzene in the accepted waste stream.

Soil and absorbents and dried oil/water separator sediments from various Fort Bliss locations are received at the Hazardous Waste Field Services' waste yard in varying numbers and sizes of containers, depending on the type and volume of waste. It will often require waste from multiple events (i.e., spills or oil/water separator cleanouts) to fill a 20-yard roll-off. When waste from an event is received at the waste yard, all waste containers from that event will be sampled to make a composite sample of that event. The waste from that event will be placed in the roll-off. The composite sample will be stored at 0 to 6 degrees C until 1) it can be extracted at the laboratory within the 14-day hold time or 2) the roll-off is filled with waste from subsequent events, whichever is shorter in duration. If waste from that event fills or completes a roll-off, within the time required to meet the hold time of the first event that contributed to that roll-off, all composite samples from

that roll-off will be used to create a volume-proportionate roll-off composite (composite of a composite) sample that is sent to the lab for analysis. If a roll-off is not filled in time for the first contributing event's composite sample to meet the 14-day extraction hold time, a volume-proportionate composite (composite of a composite) sample of that partial roll-off will be created and sent to the lab for analysis. Waste from subsequent events may be used to fill a partially full roll-off, provided that the same sampling and analysis protocol is used. Roll-off contaminant concentrations will be calculated from composite sample analyses and their respective waste volumes. Event waste volumes, container volumes and numbers, windrow numbers, sample dates, sample results, and roll-off concentrations will be logged to track wastes and accurately calculate the COC concentrations in each full roll-off. All samples must be stored/transported in a refrigerator or ice-filled cooler at all times. All samples will be analyzed for metals, TPH, Benzene and PCBs as shown in Section 2.2 of Part II and in Attachment A of Part III.

~~Waste will be accumulated and sampled at off-site locations before it is taken to the bio-cell. Soil and non-crystalline absorbents contaminated with POL will be received in various containers at Hazardous Waste Field Services' waste yard and accumulated in 20-cubic yard roll-offs. Pride Industries will remove sediments from oil-water separators in various locations around the base and transport these sediments to their drying pads for drying. Once the sediments are no longer saturated with water, they will be accumulated in 20-cubic yard roll-offs. At both Hazardous Waste Field Services and Pride Industries, respective wastes will be accumulated until the respective 20-cubic yard container is full of waste. At this point, the waste will be weighed, sampled, analyzed and dispositioned according to Section 2.2 of Part III.~~

Roll-offs that are determined to be eligible for treatment at the bio-cell will be transported from the waste yard to the bio-cell. As denoted by block "B" in the "Generator" section of Figure III.1 of Part III, waste with TPH or benzene greater than the Tier I Residential Soil critical PCLs and PCBs or metals less than the Tier I Residential Soil critical PCLs will be transported to the bio-cell for bio-treatment. After prescribed bio-treatment at the bio-cell, if results indicate that TPH and benzene are below Tier 1 Residential Soil critical PCLs, the treated material is ready to be used as general fill within the Texas area of the installation unless State permits are sought for use in the NM portions of Fort Bliss. All disturbance or fill operations not within the bio-cell facility itself will require environmental review IAW normal Fort Bliss procedures.

Processed material with contaminant concentrations equal to or above the 0.5-acre Tier I Residential Soil critical PCLs ~~will~~ may be directly transported to and disposed of at the City of El Paso Landfill (Clint, TX) and Camino Real Landfill (Sunland Park, NM), as denoted by the block "E" "YES" pathway ~~block "D"~~ in Figure III.1 of Part III.

Local MSW landfills within 50 miles of the bio-cell, such as City of El Paso Landfill (Clint, TX) and Camino Real Landfill (Sunland Park, NM), can accept COC concentrations that do not exceed the concentrations listed in Table 1 of §335.521(a)(1) and soils contaminated with POLs. TPH ranges of less than 600 mg/kg can be accepted by these landfills as daily cover. TPH ranges greater than or equal to 600 mg/kg but less than 1,500 mg/kg can be accepted into these landfills as special waste. TPH ranges of greater than or equal to 1,500 mg/kg cannot be accepted by these landfills. Camino Real Landfill also requires analysis of benzene, toluene, and xylenes (BTEX).

6.2 Quantity and Processing of Waste

The maximum waste received at the facility will not exceed 2,000 cubic yards per year. Although the average waste received is calculated to be approximately 5.5 cubic yards per day, the waste will typically be received in 20-cubic yard roll offs. With the listed above daily and yearly incoming waste stream amounts, this facility will be within the parameter of 30 TAC 330.203(b). The facility does not accept incoming waste on a set schedule. The bio-cell will accommodate the incoming waste stream on an as needed basis as long as adequate space is available and the maximum quantity of 2,000 cubic yards is not exceeded. The bio-cell will operate five days per week, Monday through Friday, 8:00 a.m. to 5:00 p.m.

At full capacity, the facility will contain an estimated 360 and 200 cubic yards of windrow material and admixtures, respectively. The average length of time waste material will be at the facility is three to six months. However, a windrow may be at the facility up to 12 months or longer, as deemed necessary by bio-cell personnel to attain adequate treatment.

6.3 Monitoring, Control, Sampling and Analysis

All sampling collection and analysis performed as part of this registration will be conducted in accordance 30 TAC §330 Subchapter F, Analytical Quality Assurance and Quality Control. The

facility will retain records of each analysis for a minimum of 3 years.

Waste hauled to the bio-cell is accepted by bio-cell personnel and formed into a windrow as described in Section 2.2 of Part III. Monitoring, control, sampling, and analysis of windrows is discussed below in Sections 6.3.1 through 6.3.2.

6.3.1 Bio-treatment Monitoring

When waste material is undergoing bio-treatment (i.e., after admixture addition), no sampling and analysis will be required. However, temperature and moisture content must be monitored to ensure ideal conditions are in-place for bio-treatment to occur.

Temperature and moisture monitoring shall be conducted for each individual windrow according to the monitoring schedule below:

- Immediately following mixing activities;
- Daily for 3 days following mixing activities;
- Once per week thereafter until temperature and/or moisture fall below or rise above critical limits given in 6.3.1.1 and 6.3.1.2, respectively; and
- At any time deemed necessary by operator based on daily observation to ensure efficient composting process.

Temperature and moisture measurements must be taken using a Reotemp Compost Thermometer and a calibrated Reotemp Moisture Meter, respectively, or similar measuring devices based on the grid system as illustrated and discussed below:

- Rows A and B shall be 6.5 feet apart, centered along the length of the windrow. Columns 1, 2 and 3 shall be evenly spaced along the length of the windrow according to its final length.
- Insert meter probes approximately two-thirds into the depth of the pile so that the tip

measures the temperature and moisture content near the center of the pile.

- Record the temperature and moisture content at each location.
- Log temperature and moisture measurements as well as the following parameters in the soil management database:
  - Date and time;
  - Monitoring location ID;
  - Air temperature; and
  - Total rainfall since last monitoring event, as measured on-site or by a nearby weather station.

6.3.1.1 Temperature Control

Following measurements taken above, mixing should be employed and documented in the soil management database if the following conditions occur:

- When temperatures exceed 150°F, to cool windrow.
- If temperatures have not reached 130°F after two weeks, to stimulate microbial activity. When remixing, add additional manure or other organic material along with equal parts wood chips.
- During the first two months of operation, when temperatures drop below 105°F, to aerate and stimulate microbial activity. When remixing, add additional manure or other organic material along with equal parts wood chips.

6.3.1.2 Moisture Control

Composting material should feel moist but not excessively wet. When squeezed in a fist, free water should not drip from the material. Bio-cell personnel will use the following procedures to control windrow moisture:

- Following measurements taken as part of 6.3.1, windrows should be irrigated if moisture content drops below 40%, or an average value of 3 is read on the calibrated Reotemp Moisture Meter.
- Irrigation shall be conducted concurrently with mixing (6.3.1.3) to ensure uniform moisture distribution.
- Stop irrigation if ponding of water is observed near any windrow.
- Record total volume of water applied in soil management database.
- If a strong putrid, mildew or rotten odor is observed, mix windrow to aerate.

6.3.1.3 Mixing

Regular mixing should occur in response to the process monitoring described in 6.3.1.1 and 6.3.1.2, but no more than once every seven days, and no less than once per month. Use the skid steer (Bobcat) or other similar equipment to mix the windrow as follows:

- Reduce the windrow depth to about two feet;
- Distribute any admixtures or water onto the windrow as necessary; and
- Reform the windrow to its original size and shape.

All mixing activities shall be documented in the soil management database.

6.3.2 Post-Processing Sampling and Analysis

At the completion of Phase III Batch Curing and Maturation, as described in Section 2.2 of Part III, the windrow will be sampled and analyzed to determine whether the TPH and benzene levels in the processed waste have been reduced below the 0.5-acre Tier I Residential Soil critical PCLs. Six grab samples will be pulled from the windrow locations, as illustrated in Section 6.3.1, at approximately two-thirds into the depth of the windrow. The number of grab samples, locations and depths to produce a composite sample may be varied as deemed necessary by bio-cell personnel to obtain a representative sample of the windrow. The composite sample will be analyzed for the following:

- TPH (TCEQ Method 1005); and
- Benzene ((EPA Method SW 846/8021B).

If results indicate that the levels for all COCs are below Tier 1 Residential Soil critical PCLs, the material is ready for use as general fill within the Texas area of the installation unless State permits are sought for use in the NM portions of Fort Bliss. All disturbance or fill operations not within the bio-cell facility itself will require environmental review IAW normal Fort Bliss procedures.

It is anticipated that the bio-cell will reuse at least 10 % of all waste that enters the facility. Waste volumes that are processed at the bio-cell will be recorded and tracked to determine if waste was treated to reuse standards. Upon completion of processing each windrow, whether successfully or unsuccessfully treated, reuse percentage will be

calculated by dividing the volume of waste treated to reuse standards by the total volume of waste that was processed by the bio-cell. Figure I.4 shows the end use locations in uncolored/unshaded areas for the treated soil that meets the 0.5-acre Tier I Residential Soil critical PCLs, as denoted by block "D" of Figure III.1 in Part III. Reusable material will serve as fill for various uses, including, but not limited to, road-based excavations and building structures.

Processed material that does not meet the 0.5-acre Tier I Residential Soil critical PCLs will either continue being treated in at the bio-cell or be dispositioned according to Section 2.2 of Part III.

6.3.3 Effluent Sampling, Analysis and Disposal

~~Although wastewater effluent is not anticipated at the bio-cell,~~ FBDPW-ED will sample and analyze any effluent (collected leachate) for arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, benzene, PCBs, TPH, fats, oils, and grease, and pH, in accordance with 30 TAC §330.203(c), prior to being hauled off via tanker truck and disposed of at a permitted local Publicly Owned Treatment Works (POTW), such as El Paso Water ~~facility~~. If any concentration limits are exceeded or the POTW will not accept the leachate, the waste will be managed as a solid waste, dispositioned by Hazardous Waste Field Services' and directly transported to a designated treatment facility. Any other discharges from the facility (i.e., not from the waste processing area) will be sampled in accordance with the TPDES TXR050000 Multi-Sector General Permit.

7.0 FACILITY-GENERATED WASTES

30 TAC §330.~~205~~209

Wastes generated at the facility will ~~be limited to~~ include: (1) liquid waste resulting from storm water and washing of the facility and operating equipment; (2) general trash, collected litter, sweepings, and discarded feedstock (rocks > 4" diameter); and~~/or~~ ~~(2)~~(3) processed material that exceeds the Tier 1 Residential Soil critical PCLs as outlined in Section 2.2 of Part III. For liquid wastes that will be removed prior to evaporation taking place, wastewater will be managed as

described in Section ~~6.3.4~~ 6.3.3 of Part IV. General trash, collected litter, sweepings, and discarded feedstock will be placed in a covered container and directly transported to and disposed of at the local MSW landfill. ~~It is anticipated that the above wastes will be redirected to the City of El Paso Landfill (Clint, TX) or the Camino Real Landfill (Sunland Park, NM), both of which can accept MSW and special waste.~~ The operation of the bio-cell will not produce sludges, as defined in 30 TAC §330.3(143).

8.0 CONTAMINATED WATER MANAGEMENT

30 TAC §330.207; §330.331(b); §332.47(c)(i)

The bio-cell liner was constructed per 30 TAC §330.207(b). As a result, all liquids resulting from the operation of the bio-cell and precipitation will be collected and retained until they are disposed of. As discussed in Section ~~6.3.4~~ 6.3.3 of Part IV, any excess water will be sampled, analyzed and disposed of in a manner that will not cause surface or groundwater pollution.

The bio-cell will not conduct any mining. Additionally, contaminated water will not discharge to a septic system.

9.0 STORAGE REQUIREMENTS

30 TAC §330.209

All special waste and admixtures will be stored in such a manner that it does not constitute a fire, safety, or health hazard or provide food or harborage for animals and vectors, and will be contained or bundled so as not to result in litter. To accomplish this, a bio-cell floor plan will be developed and updated as necessary to designate and segregate certain areas as working surfaces (for windrows) and storage areas (for admixtures). When not actively mixing or monitoring, windrows will be tarped to control moisture and wind-blown dust. Admixture piles will also be tarped to control odors and windblown particulates. Good housekeeping practices, as described in Part III, Section 2.3, will also be employed as necessary. ~~Admixtures will be segregated from each other as well as the windrows. Control of odors, vectors, and windblown waste from the admixture storage area will be maintained.~~

10.0 APPROVED CONTAINERS

30 TAC §330.211

Food wastes are not part of the incoming waste stream of the bio-cell. However, food wastes may be generated by facility personnel. These wastes will be placed in lidded, sealed, trash receptacles and removed from the site on a weekly basis by bio-cell personnel.

11.0 RECORDKEEPING AND REPORTING REQUIREMENTS

30 TAC §330.219

A copy of the registration, the approved registration application and all other related or required plans or documents will be maintained at the facility during the active life of the site and shall be considered a part of the operating record of this facility. Additionally, a set of as-built construction plans for the facility will be maintained at the facility. Information and data shall be recorded, as appropriate, in the operating record to be retained at the site during the active life of the site. Upon request by the TCEQ, all such documents will be made available for inspection.

The items listed on Table 11-1 will be maintained and filed. This information will be placed in the operating record within seven working days of completion or upon receipt of analytical data, as appropriate.

No cost estimate and financial assurance information is required because the bio-cell is exempt as outlined in 30 TAC §37.8001 [30 TAC §330.219(b)(4)]. Records retention associated with sludge use, disposal, and transportation is not applicable (30 TAC §330.219(b)(8)). The signatories to any reports submitted to the TCEQ will comply with the conditions listed in §330.219(c). All information contained in the operating record shall be furnished upon request to the TCEQ and will be made available for inspection at any time, as required in §330.219(e). The owner will retain all information contained within the operating record and any required plans for the life of the facility, in accordance with §330.219(f).

Table 11-1 Operating Record

Records to be Maintained	Rule Citation
1. Logs a. Access Control Inspection Maintenance Log b. Feedstock Checklist c. Dust Nuisance Control Log d. Fire Extinguisher Maintenance Log	30 TAC §330.223
2. All location-restriction demonstrations	30 TAC §330.219(b)(1)
3. Inspection Records and Training Procedures	30 TAC §330.219(b)(2)
4. Closure Plans and any monitoring, test, or analytical data relating to closure requirements.	30 TAC §330.219(b)(3)
5. Copies of all correspondence and responses relating to the operations of the facility, modifications to the registration, approvals, and other matters pertaining to technical assistance.	30 TAC §330.219(b)(5)
6. All documents, manifests, shipping documents, trip tickets, DD Forms 1348-1A, etc.	30 TAC §330.219(b)(6)
7. Any other documents as specified by the approval registration or by the TCEQ.	30 TAC §330.219(b)(7)
8. Records, kept monthly, to document the amount of waste accepted and the amount diverted from landfill disposal (i.e. treated to exceed Tier I Residential Soil critical PCLs) to meet a beneficial use. FBDPW-ED will submit an annual report to the executive director by March first summarizing the material recovery activities and the percentage of received wastes that were recovered during the past calendar year.	30 TAC §330.219(b)(9)
9. All documents and forms associated with the Fire Protection Plan (see Section 12.0).	30 TAC §330.221
10. Records of any alternative operating hours, if applicable.	30 TAC §330.229(b)

12.0 FIRE PROTECTION

30 TAC §330.221

The following section describes the content of the fire protection plan.

12.1 Fire Protection Plan

The following steps are taken at the facility by designated personnel to prevent fires.

12.1.1 Routine Observation and Preventative Measures:

- Prohibit open burning of any materials at the bio-cell.
- Maintain a minimum moisture content of 40% in windrows to prevent spontaneous ignition.

- Be alert for signs that composting materials are burning such as:
    - Smoke;
    - Steam; and
    - Excessive heat.
- Keep all equipment a safe distance from exposed composing material.
- Routinely clean equipment using a high-pressure washer to remove material that could cause overheating.
- Remove dead trees, brush, and/or vegetation adjacent to bio-cell to create a firebreak.
- Do not permit smoking inside bio-cell.

12.1.2 Procedures in the Event of a Fire

In the event of a fire within the bio-cell, take the following steps:

- Implement the Fire Contingency Plan (Attachment B) as soon as fire is detected.
- Contact the emergency coordinator (915-568-6185/6697) and the Fort Bliss Fire Department (911) immediately.
- The emergency coordinator will direct bio-cell personnel to evacuate the facility and deny access to non-emergency vehicles.
- All fire-fighting will be handled by the Fort Bliss Fire Department.
- If a fire occurs on a vehicle or piece of equipment and if their actions can be performed safely:
    - Cease operation;
    - Park away from any fuel source, uncovered composting material, and other vehicles;
    - Use fire extinguisher to put out fire; and/or
    - Call emergency coordinator.

12.1.3 Fire Equipment

- Three, Type A 10-pound commercial grade fire extinguishers shall be kept in the bio-cell on-site building.

- Fort Bliss Fire Department may upgrade the requirement for the number of extinguishers to be placed onsite.
- Keep each extinguisher fully charged and ready for use.
- Outfit all vehicles and operating equipment with fire extinguishers.
- Have each extinguisher inspected annually and recharge if needed. Label each extinguisher with a current inspection tag.
- Inspect and recharge extinguisher after each use.

12.1.4 Fire Protection Training

- All bio-cell personnel will attend annual training in fire prevention, response, and protection given by the Fort Bliss Fire Department.
- All bio-cell personnel will be familiar with the use and limitations of firefighting equipment available onsite.
- Include records of Fire Protection Training with the site operating records for the bio-cell.

12.2 TCEQ Notification

After any fire (related to waste management activities that cannot be extinguished within 10 minutes of discovery) occurs, the TCEQ regional office will be contacted. The notification to the regional office will include:

- Contacting by telephone as soon as possible, but no later than 4 hours following fire discovery; and
- Providing a written description of the cause and extent of the fire and the resulting fire response within 14 days of fire detection.

The facility will provide to the appropriate regional office as much information as possible regarding the fire and fire-fighting efforts, as soon as possible after the fire occurs.

The fire prevention and fire control procedures for the facility will be revisited following the occurrence of a significant fire to determine if modifications are warranted.

13.0 ACCESS CONTROL

30 TAC §330.223

Public access will be controlled to minimize unauthorized vehicular traffic, unauthorized and illegal dumping, and public exposure to hazards associated with waste management. Controlled access will be maintained by an 8-foot chain link fence that surrounds the entire perimeter of the facility.

The main point of access to the site will be from two unnamed roads via Sanitary Landfill Road. A 20-foot wide, double gate, chain link fence will serve as the only access point (i.e., main entrance) for in-bound and out-bound traffic utilizing the facility. This gate, along with another gate that is used only by facility personnel, will be closed and locked during non-operating hours. The bio-cell will not allow any unauthorized entry or deposition of solid waste or hazardous materials.

A sign, indicating the type of site, the hours and days of operation, along with the registration number, will be located at the main entrance. The main entrance and perimeter fence are shown on Figure II.2 of Part II. Perimeter fences will be inspected at least monthly and as described in Section 5.0. These inspections and any maintenance will be recorded in the site's operating record.

When there is an access breach, the regional TCEQ office, and any local pollution agency with jurisdiction that has been requested to be notified, will be notified within 24 hours of detection. The breach must be temporarily repaired within 24 hours of detection and must be permanently repaired by the time specified to the TCEQ regional office when it was reported in the initial breach report. If a permanent repair can be made within 8-hours of detection, no notice to the TCEQ's regional office is required. Otherwise, notification is required to the TCEQ's regional office when a permanent access control breach repair is completed.

The existing site entrance is a gravel road. All vehicles entering the site may drive around the buffer zone or turnaround within the working surface of the bio-cell. Parking areas for employees and visitors will be located along the edge of the buffer zone north of the office. Equipment will be staged within the perimeter of the fenced boundary. Private citizens will not

be allowed to deliver material to the bio-cell.

Dust and mud will be controlled on an as needed basis. Due to the arid conditions at the installation, mud issues are rare and any mud that may accumulate will be removed as soon as practicable.

14.0 UNLOADING OF WASTE

30 TAC §330.225

The unloading of special waste will be confined to one of six windrow areas, as shown on Figure II.2 of Part II. The unloading of waste in unauthorized areas is prohibited. Waste that is deposited in unauthorized locations will be removed immediately and either placed in the windrow area or returned to Hazardous Waste Field Services or Pride Industries. The site supervisor or authorized representative will be present during regular operating hours to direct the unloading of waste in appropriate areas. If needed, the site supervisor will assist in the unloading of waste. Appropriate signage will be utilized to identify authorized areas of disposal. The bio-cell is not required to accept any special waste that is determined to cause or may cause problems in maintaining full and continuous compliance with this registration.

Not all waste streams are accepted at the bio-cell. Waste Acceptance and Analysis, Section 6.0 of Part IV, describes the wastes that can be collected at the bio-cell. The site supervisor will observe incoming waste, and if based upon observation, has the authority and responsibility to reject unauthorized waste loads. Any prohibited waste not discovered until after unloading will be placed back in the offending transporter's vehicle, if possible, otherwise returned to Hazardous Waste Field Services or Pride Industries. The driver may be advised where the waste may be managed or disposed of legally, and will be responsible for the proper handling of the rejected waste.

In the event the unauthorized waste is not discovered until after the delivery vehicle is gone, the waste will be segregated and controlled as necessary. The site supervisor will make an effort to identify the entity that deposited the prohibited waste and have them return to the facility and properly dispose of the waste. If identification is not possible, the site supervisor will work with FBDPW-ED to remove and dispose of the waste as soon as is practical. If there is no solution

available utilizing installation resources, FBDPW-ED will notify the TCEQ and seek guidance on how to remove and dispose of the waste as soon as practical. A record of unauthorized material removal will be maintained in the operating record.

Only those persons operating vehicles that comply with the following requirements will be authorized by the site supervisor to transport waste to and from this facility:

1. All vehicles and equipment used for the collection and transportation of waste will be operated, and maintained to prevent loss of waste material and to limit health and safety hazards to facility personnel and the public.
2. Collection vehicles and equipment will be maintained in a sanitary condition to preclude odors and fly breeding.
3. Collection vehicles not equipped with an enclosed transport body will use other devices such as nets or tarpaulins to preclude accidental spillage and windblown litter.

Facility personnel will keep vigilant watch for compliance with operating requirements. Signs with directional arrows and/or portable traffic barricades will help to restrict traffic to designated unloading locations. In addition, rules for waste receipt and prohibited waste will be prominently displayed on signs at the facility entrance.

15.0 SPILL PREVENTION AND CONTROL

30 TAC §330.227

The bio-cell is designed to collect and retain all waste, precipitation, and spills that might impact the facility. See Part III, Section 3.0, for more information.

16.0 FACILITY OPERATING HOURS

30 TAC §330.229

The bio-cell will be authorized to accept waste and operate heavy equipment between 8:00 am and 5:00 pm, Monday through Friday. The facility does not anticipate ever needing to operate beyond the days and hours specified above.

17.0 FACILITY SIGN

30 TAC §330.231

A conspicuous sign measuring a minimum four feet by four feet with letters at least 3 inches in height will be maintained at the main entrance to the facility. The sign will state the following information:

- Name of Facility
- Type of MSW Facility: Type V Processing Facility
- Authorized by TCEQ Registration Number: MSW-42038
- Hours of Operation: 0800-1700, Monday through Friday

Facility rules will be posted on the site signs. Facility rules will include, but are not limited to, the following:

- All loads must be covered or otherwise secured.
- No Smoking.
- Speed Limit 5 mph.

18.0 CONTROL OF WINDBLOWN MATERIAL AND LITTER

30 TAC §330.233

The El Paso area is windy, so precautions must be taken to prevent and mitigate windblown material. Windblown material and litter will be controlled by following proper unloading procedures. Windrows will be tarped and secured with sand bags. Onsite stockpiles will be controlled to eliminate windblown soil or dust by applying water as necessary to dampen the material. The gravel access roads will be monitored occasionally by the Grounds and Roads Department for dust generation and sprayed to control dust. Personnel will police the facility including fences, access roads, and the entrance gate, twice per week to pick up and return windblown material and litter to the facility and perform such other litter control measures, as necessary. The entrance signs will advise that all vehicles hauling waste must be covered.

19.0 MATERIALS ALONG THE ROUTE TO THE FACILITY

30 TAC §330.235

The site supervisor will take steps to encourage that vehicles hauling waste to the bio-cell are enclosed with a tarpaulin, net, or other means to effectively secure the load in order to prevent the escape of any part of the load by blowing or spilling. The site supervisor will take actions such as posting signs, reporting offenders to the proper military chain of command, or similar measures.

The bio-cell will collect spilled materials on Sanitary Landfill Road and the unnamed access roads on days the facility accepts waste. All vehicles will be required to ensure their loads are covered in compliance with vehicle laws.

20.0 FACILITY ACCESS ROADS

30 TAC §330.237

The only on-site roads are gravel roads that were constructed to provide wet-weather operation capability. The roads will be free draining and passable in two directions, and free of excessive ruts. Tracked mud and associated debris at the entrance to the facility and on the public roadway at the entrance to the facility and trash on public roadways will be removed at least once per day on days when mud and associated debris are being tracked onto the public roadway, to the extent that mud can be reasonably considered to be associated with facility operation.

Dust from on-site and other access roadways will not become a nuisance to surrounding areas. The Grounds and Roads Department will monitor and mitigate nuisance dust. All on-site and other access roadways will be maintained on a regular basis to minimize depressions, ruts, and potholes.

21.0 OVERLOADING AND BREAKDOWN

30 TAC §330.241

The design capacity of the bio-cell will not be exceeded during operation. The facility will not accumulate solid waste in quantities that cannot be processed within such time as will preclude

the creation of odors, insect breeding, or harborage of other vectors. If such accumulations occur, additional special waste will not be received until the adverse conditions are abated. The bio-cell is sized to accept an average of 5.5 cubic yards per day with an estimated maximum storage of 360 yards of windrow material. Once this amount of windrow material has accumulated, no additional material will be accepted. A skid steer (Bobcat) or equivalent equipment will be used to move waste and admixtures within the facility. If the skid steer breaks down, waste will be stored until it is repaired. If it cannot be stored, it will be returned to Pride Industries or Hazardous Waste Field Services.

If a significant work stoppage should occur, the owner or operator will restrict additional waste receipt. If the work stoppage is anticipated to last long enough to create objectionable odors, insect breeding, or harborage of vectors, steps will be taken to remove the accumulated waste from the facility to an approved backup storage, processing, or disposal facility within 72 hours.

22.0 SANITATION

30 TAC §330.243

The skid steer (Bobcat) is washed down with water after waste loading/unloading and windrow mixing. Because the working surface is porous and well drained, no surface cleaning or wash down will be required when a windrow is removed from the working surface. Washing water is transferred from the rain water storage tank into one of the portable water tanks. The portable water tank is hauled to the working surface, where the water is pressurized and sprayed via a gasoline-powered pump and hose.

All wash water used will drain southward and collect around the leachate trench located immediately south of the southern border of the bio-cell working surface. To prevent ponding on the working surface, collected trench water will be transferred via pump to the rain water tank as needed. This water is used for windrow moisture control and equipment wash down. These uses and high evaporation rates have prevented the need to have any excess water hauled from the site in 18 years of operation. In the rare event that excess water accumulates at the site, the water would be sampled, analyzed and disposed of as described in Part IV, Section 6.3.3 ~~and analyzed for arsenic, barium, cadmium, chromium, lead, mercury, selenium, silver, benzene, PCBs, TPH, fats, oils, and grease, and pH, in accordance with 30 TAC §330.203(c),~~

~~prior to being hauled off and disposed at a permitted facility~~.

Odor, rodent, or insect issues have not been experienced at the bio-cell in 18 years of operations.

23.0 VENTILATION AND AIR POLLUTION CONTROL

30 TAC §330.245

The bio-cell is considered a remediation facility, thus a notification to TCEQ was required. On September 21, 2009, Fort Bliss submitted a Permit by Rule Notification Relocation form TCEQ-20122 required by 30 TAC §106.533 for Remediation. The authorization and application are on file with the TCEQ under Account #EE0024G.

Per PBR 106.533, the following air monitoring procedures are required:

1. Emission Rate (ER) Test

Following preparation of each windrow, or as directed by FBDPW-ED, submit documentation showing TPH and benzene emissions from all windrows combined are less than or equal to those in Table 23.1.

Table 23.1 TPH and Benzene ER and Concentration Limits

Pollutant	ER Limit (lb/hr)	ESL ($\mu g/m^3$)
TPH	1.0	NA
Benzene	0.214	170

2. Visible Emissions Test

As directed by FBDPW-ED, conduct a visible emissions test using EPA Test Method 22 to ensure no visible emissions leave the site for a period exceeding 30 seconds in any six-minute period when: handling, processing, and stockpiling of contaminated soil; or conditioning (adding moisture) remediated soil.

3. Air Contaminant Concentration Measurements

Conduct weekly measurements near the bio-cell remediation activities (no further away than the bio-cell fence line) using a Photoionization Detector (PID) to determine the concentrations of air contaminants being emitted. Concentrations of all air contaminants shall be compared to their corresponding Effects Screening Levels (ESLs) as published by the TCEQ. The formula found in 30 TAC 106.533(h) shall be used to convert PID output to concentration in units of micrograms per cubic meter. If any air contaminant concentration exceeds its ESL, cease remediation activities immediately and perform corrective actions to restore the air contaminant concentrations to below its ESL.

4. Recordkeeping Requirements

Maintain the following records in the soil management database for a five-year period:

- Sample time and date of each PID measurement;
- PID measurement results (ppmv);
- Any corrective actions taken, including time and date of the action, if any actions are necessary;
- Process operations occurring at the time of each PID measurement;
- Records of compliance with the TPH and benzene emission rate limits specified in this section; and
- A copy of the current remediation notification issued per 30 TAC 106.533.

Air emissions from the bio-cell are not expected to cause or contribute to a condition of air pollution as defined in the Texas Clean Air Act. No burning of wastes is proposed for the bio-cell. The bio-cell will be operated in a manner that includes routine waste removal and cleaning to avoid the generation of objectionable odors that could become a nuisance.

The operation of the bio-cell is entirely outdoors, therefore adequate ventilation will not be a concern. As shown in the wind rose in Figure II.1, there is no dominant prevailing wind direction at the site. As such, emissions and odors from the bio-cell will be driven by the winds in most directions, depending on immediate weather conditions and seasonality. Because emissions are expected to be very low and there is at least 0.5 miles to the nearest populated area, emissions will be too diffuse to detect by the time they reach any sensitive areas. If odors or emissions become bothersome to neighboring residents, the facility will actively process waste only when wind is not blowing from the east. Tarped windrows will not produce any odors or emissions.

Other measures that will be taken to control air pollution at the facility include periodic wash down of equipment that has contacted waste, minimization of water ponding, prohibition of open burning at the site (except as approved by TCEQ), and control of accidental fires as outlined in the fire protection plan.

24.0 HEALTH AND SAFETY

30 TAC §330.247

Bio-cell personnel will be trained in the proper procedures for maintaining health and safety at the facility.

25.0 EMPLOYEE SANITATION FACILITIES

30 TAC §330.249

Potable water and sanitary facilities will be provided for all employees and visitors. Potable water and sanitary facilities are available at the office building, which is adjacent to the facility.

26.0 DISEASE VECTOR CONTROL

The need for extensive vector control (control of rodents, birds, flies, and mosquitoes) will be minimized through proper site operation. The chain link fence that surrounds the site keeps out larger animals that may be vector issues (skunks, foxes, coyotes, deer, etc.). In any case, Fort Bliss service orders for pest control will be submitted in accordance with FBDPW procedures to ensure compliance with State and Federal environmental regulations for control of any vectors or nuisance animals.

Any ponding of water at the site will be minimized and controlled to avoid its becoming a nuisance and attracting vectors, or birds that may become potential air-strike hazards for aircraft using Biggs Army Airfield or El Paso International Airport. An environmentally friendly surfactant may be used to control fly and mosquito populations.

Attachment A - DA Form 1348-1A

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CLEAR

DD FORM 1348-1A, JUL 91 (EG) ISSUE RELEASE/RECEIPT DOCUMENT

| 1 2 3 | 4 5 6 7 | 23 24 25 26 27 28 29 | 45 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 | | |

Attachment B - Contingency Plan in the Event of Fire, Explosion, or a Spill

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CONTINGENCY PLAN IN THE EVENT OF FIRE, EXPLOSION, OR A SPILL

Each facility owner or operator will have a contingency plan. The contingency plan has been designed to minimize hazards to human health or the environment from fires, explosions, or release of petroleum containing soils or petroleum constituents to air, soil, groundwater, or surface water.

A. The following procedures will be implemented in the event of a fire, explosion, or spill:

1. The employee who first becomes aware of an emergency will immediately notify the emergency coordinator (EC) or the Fort Bliss Fire Department. The primary EC is the contractor (or the alternate) who operates the bio-cell.
2. The EC will assume full responsibility for implementing emergency response measures.
3. Upon notification of a fire, explosion, or spill, regardless of its size, the EC will immediately contact the Fort Bliss Fire Department by dialing 911. The EC will direct vehicles out of the bio-cell immediately. The EC will deny access to any vehicle other than emergency response vehicles. The bio-cell is surrounded by a six-foot high fence with two gates, one on the east side and one on the west side. During hours of operation the gates will be unlocked for quick evacuation. Personnel will use the closest gate to leave the bio-cell in the event that a fire, explosion, or a spill is blocking one of the gates. The bio-cell operator will have an air horn and a bullhorn to get personnel out of the bio-cell in case of an emergency. The EC will notify state and local agencies if their help is needed to respond to an emergency.
4. The Fort Bliss Fire Department Senior Officer on scene, will direct efforts in dealing with the emergency and work with the EC, if bio-cell equipment or assets are needed. If the emergency is grave enough to require that the surrounding local areas be evacuated, the senior officer on the scene will coordinate with the Fire Department of the City of El Paso in evacuation efforts.
5. Once the emergency has been resolved, the EC will ensure proper decontamination of any equipment used to respond to the emergency. Once the emergency has been

resolved the EC will identify the cause, source, and the extent of contamination by using process knowledge, information from facility records, manifests, or, if necessary, by chemical analysis.

6. The ultimate concern is safety of customers and personnel and, secondly, the care of the operating equipment.
7. After responding to an incident resulting in fire, the EC will meet with the senior officer on scene to determine the cause of the incident. The identified causative agent will be removed from the bio-cell, if the possibility of re-ignition exists, and appropriate corrective actions to prevent its recurrence will be developed. All personnel involved with handling, transport, and placement of the soil in the bio-cell will be informed of resultant actions. Changes in operating protocol or procedures resulting from this meeting will be documented. This plan will be reviewed annually in a safety meeting format.
8. If an emergency arises during the hours when the bio-cell operator is absent, signs on the fence in Spanish and English will instruct personnel to call the Fort Bliss Fire Department and to follow the safety measures outlined in the operating manual.

B. The list of names, addresses, and phone numbers of all persons qualified to act as facility emergency coordinators are provided below. The employee who first becomes aware of an emergency will immediately notify the EC or the Fort Bliss Fire Department. The primary EC is the bio-cell supervisor.

Primary Coordinator

Title: Solid Waste Program Manager

Office Phone: (915) 568-5724

Office Address: IMBL-PWE, 622 Taylor Rd., Room 109, Fort Bliss, Texas 79916

Alternate Coordinator

On-Call Spill Response Personnel (915) 586-2193

Fort Bliss Fire Department

Emergency Phone Number: 911

Non-emergency Fire Department Phone Number: (915) 568-5283

Directorate of Public Works (DPW) Spill Response Phone Number (manned 24 hours, 7 days a week): (915) 637-6881

C. The Emergency equipment available for response to fire and spills includes the following:

- Portable fire extinguishers located at the office building at the bio-cell;
- One on-site water tank with the capacity of 350 gallons of portable water and a gas-powered water pump;
- 10 open head 55-gallon drums and a spill kit for petroleum, oil, or lubricant (POL) spills; and
- A cell phone will be carried by the bio-cell operator at all times to contact the Fort Bliss Fire Department.

EMERGENCY PROCEDURES

1. During the time that the bio-cell is open for business the operator of the bio-cell will act as the EC. If the EC cannot be reached after hours, the Fort Bliss Fire Department will contact the alternate or the person that is assigned to spill response that week. If there is a situation that requires outside help, the EC must contact a FBDPW employee. Only federal government personnel have authority to commit funds for cleanup of large spills. Once government DPW personnel have been notified, they will contact the spill response contractor to clean up large spills at the bio-cell, if needed.
2. As stated in the contingency plan, the EC will use an air horn and a bullhorn to direct personnel out of the bio-cell in case of an emergency. The EC will also direct vehicles out of the bio-cell. The EC phone numbers and the alternate EC phone numbers are listed in the contingency plan. The EC and his alternate will be completely familiar with the contingency plan, daily operations, waste characteristics, facility layout and location of records within the facility of the bio-cell. In responding to an emergency at the bio-cell, the contract operator will pass EC authority to the federal government alternate. The EC will deny access to the bio-cell to any vehicles other than emergency response vehicles. The operator of the bio-cell will have a cellular phone to call for assistance. The EC and alternate EC will contact state and local agencies for assistance, if needed.
3. The EC will immediately attempt to identify the character, exact source, amount, and extent of released material. The EC will use process knowledge, information from facility records, manifests, and lab analysis, if needed to identify any released material.
4. The EC and alternate EC will assess all possible hazards to humans or the environment from a release, fire, or an explosion. This assessment will account for any indirect or direct effects from fire, explosion or a release.
5. If an incident is grave enough to warrant evacuation of areas surrounding the bio-cell, then the EC will coordinate the evacuation with the Fort Bliss Fire Department who in turn will coordinate with the Fire Department from the City of El Paso to evacuate areas surrounding the bio-cell, as needed.
6. The EC will notify the local TCEQ field office during working hours. During non-working hours, the EC will notify the Texas Emergency Response Unit. If reportable quantities are

exceeded, the EC will then contact the National Response Center. The EC will file a report with the appropriate agency that will contain the following:

a. Name and telephone number of reporter;
b. Name and address of facility;
c. Time and type of incident;
d. Name and quantity of material involved, to the extent known; and
e. Possible hazards to human health or the environment outside the facility.

7. During an emergency, the EC will take all reasonable measures to ensure that fires, explosions, and releases do not spread to other composting piles at the facility.
8. Immediately after an emergency, the EC will provide service for treating, storing, and/or disposing of recovered water, soil, surface water, and any other material that may result from a release, fire, or an explosion at the bio-cell.
9. The EC will ensure that, after an emergency is under control, the emergency equipment will be cleaned and ready for its intended use before operations are resumed.
10. The facility owner or the operator will notify the appropriate state and local authorities before operations are resumed.
11. The operator will record the date, time, and pertinent details of any incident that requires implementing the contingency plan. Within 15 days, the operator will submit a written report to the TCEQ. The report will have the following information:

    a. Name, address, and telephone number of the facility owner or operator;
    b. Name, address, and telephone number of the facility;
    c. Registration number of the facility;
    d. Date, time, and type of incident;
    e. Extent of injuries, if any;
    f. An assessment of the actual or potential hazards to human health or the environment; and
    g. An estimated quantity and disposition of the recovered materials that result from the incident.

12. The emergency equipment available for response to fire and spills includes the following:

- Portable fire extinguishers located at the office building at the bio-cell;

- One on-site water tank with the capacity of 350 gallons of portable water and a gas-powered water pump;
- 10 open head 55-gallon drums and a spill kit for petroleum, oil, or lubricant (POL) spills; and
- A cell phone will be carried by the bio-cell operator at all times to contact the Fort Bliss Fire Department.

Facility Name: Fort Bliss Bio-cell
Permittee/Registrant Name: Fort Bliss Directorate of Public Works – Environmental Division
MSW Authorization #:
Initial Submittal Date: 01/15/18
Revision Date:

Texas Commission on Environmental Quality

Part I Form

New Permit/Registration and Amendment Applications for an MSW Facility

1. Reason for Submittal

☒ Initial Submittal ☐ Notice of Deficiency (NOD) Response

2. Authorization Type

☐ Permit ☒ Registration

3. Application Type

☒ New ☐ Major Amendment
☐ Major Amendment (Limited Scope)

4. Application Fees

☐ Pay by Check ☒ Online Payment

If paid online, e-Pay Confirmation Number: 582EA000264334

5. Application URL

Is the application submitted for Type I Arid Exempt (AE) and/or Type IV AE facility?

☐ Yes ☒ No

If the answer is "No", provide the URL address of a publicly accessible internet web site where the application and all revisions to that application will be posted.
https://www.bliss.army.mil/DPW/Environmental/EISDocuments2.html

6. Application Publishing

Party Responsible for Publishing Notice:

☒ Applicant ☐ Agent in Service ☐ Consultant

7. Alternative Language Notice

Is an alternative language notice required for this application? (For determination refer to Alternative Language Checklist on the Public Notice Verification Form TCEQ-20244-Waste)

☒ Yes ☐ No

8. Public Place Location of Application

Name of the Public Place: **El Paso Public Library**

Physical Address: **501 North Oregon Street**

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79901-0058**

(Area code) Telephone Number: **915-543-5433**

9. Consolidated Permit Processing

Is this submittal part of a consolidated permit processing request, in accordance with 30 TAC Chapter 33?

☐ Yes ☒ No ☐ Not Applicable

If "Yes", state the other TCEQ program authorizations requested:

10. 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."

11. Permits and/or Construction Approvals

Select all that apply	Received	Pending	Not Applicable
Hazardous Waste Management Program under the Texas Solid Waste Disposal Act	☒	☐	☐
Underground Injection Control Program under the Texas Injection Well Act	☐	☐	☐
National Pollutant Discharge Elimination System Program under the Clean Water Act and Waste Discharge Program under Texas Water Code, Chapter 26	☒	☐	☐
Prevention of Significant Deterioration Program under the Federal Clean Air Act (FCAA). Nonattainment Program under the FCAA	☐	☐	☐
National Emission Standards for Hazardous Air Pollutants Preconstruction Approval under the FCAA	☐	☐	☒

Select all that apply	Received	Pending	Not Applicable
Ocean Dumping Permits under the Marine Protection Research and Sanctuaries Act	☐	☐	☐
Dredge or Fill Permits under the CWA	☐	☐	☐
Licenses under the Texas Radiation Control Act	☐	☐	☐
Other Environmental Permits			
MSW (1422) Solid Waste Landfill	☒	☐	☐
MSW (42038) Composting Facility	☒	☐	☐
Air Operating Permit Account Number EE0024G	☒	☐	☐
	☐	☐	☐

12. General Facility Information

Facility Name: **Fort Bliss Bio-cell**

MSW Authorization No. (if available): **42038**

Regulated Entity Reference No. (if issued)*: RN**100210095**

Physical or Street Address (if available): **None**

City: **Fort Bliss** County: **El Paso** State: **TX** Zip Code: **79913**

(Area Code) Telephone Number: **915-568-5724**

Latitude (Degrees, Minutes Seconds): **N 31, 52, 35**

Longitude (Degrees, Minutes Seconds): **W 106, 23, 34**

Benchmark Elevation (above mean sea level): **3914** ft.

Provide a description of the location of the facility with respect to known or easily identifiable landmarks: **Immediately south of the Fort Bliss Landfill.**

Detail access routes from the nearest United States or state highway to the facility: **The bio-cell may be accessed by road from Interstate 10 in El Paso by taking Exit 22B-Patriot Freeway (Highway 54) toward Alamogordo/Fort Bliss. Drive North on Patriot Freeway for 2.3 miles and take Exit 4 – Railroad Drive/Airport/Fred Wilson Ave. for 1.2 miles then turn north (left) onto Chafee Road. Drive North for 3.7 miles. Turn east (right) onto the unnamed bio-cell access road. Drive East for 0.5 miles to the entrance gate.**

*If this number has not been issued for the facility, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Facility as the Regulated Entity.

13. Facility Type(s)

☐ Type I	☐ Type IV	☒ Type V
☐ Type I AE	☐ Type IV AE	☐ Type VI

14. Activities Conducted at the Facility

☐ Storage ☒ Processing ☐ Disposal

15. Facility Waste Management Unit(s)

☐ Landfill Unit(s)	☐ Incinerator(s)
☐ Class 1 Landfill Unit(s)	☐ Autoclave(s)
☐ Process Tank(s)	☐ Refrigeration Unit(s)
☐ Storage Tank(s)	☐ Mobile Processing Unit(s)
☐ Tipping Floor	☐ Type VI Demonstration Unit
☐ Storage Area	☐ Compost Pile(s) and/or Vessel(s)
☐ Container(s)	☒ Other (Specify) **Material Recovery**
☐ Roll-off Boxes	☐ Other (Specify)
☐ Surface Impoundment	☐ Other (Specify)

16. Description of the Revisions to the Facility

Skip this box, if "New" is selected under "Application Type".

Provide a brief description of all revisions to the permit conditions and supporting documents referenced by the permit. Also, provide an explanation of why the amendment is requested.

17. Facility Contact Information

Site Operator (Permittee/Registrant) Name: U.S. Department of the Army

Customer Reference No. (if issued)*: CN**600126262**

Mailing Address: **Building 777, Pleasonton Road**

City: **Fort Bliss** County: **El Paso** State: **TX** Zip Code: **79916**

(Area Code) Telephone Number: **915-568-5724**

Email Address: **lilia.a.lenhart.civ@mail.mil**

TX Secretary of State (SOS) Filing Number: **NA**

*If the Site Operator (Permittee/Registrant) does not have this number, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Site Operator (Permittee/Registrant) as the Customer.

Operator Name[1]: "Same as "Site Operator (Permittee/Registrant)"

Customer Reference No. (if issued)*:

Mailing Address:

City: County: State: Zip Code:

(Area Code) Telephone Number:

Email Address:

TX SOS Filing Number:

[1]If the Operator is the same as Site Operator/Permittee type "Same as "Site Operator (Permittee/Registrant)".
*If the Operator does not have this number, complete a TCEQ Core Data Form (TCEQ-10400) and submit it with this application. List the Operator as the customer.

Consultant Name (if applicable): The Thrival Company, Mike Frisch, P.E.

Texas Board of Professional Engineers Firm Registration Number: **15502**

Mailing Address: **5732 Gorham Glen Lane**

City: **Austin** County: **Travis** State: **TX** Zip Code: **78739**

(Area Code) Telephone Number: **512-745-3692**

E-Mail Address: **mike@thrivalcompany.com**

Agent in Service Name (required only for out-of-state):

Mailing Address:

City: County: State: Zip Code:

(Area Code) Telephone Number:

E-Mail Address:

18. Facility Supervisor's License

Select the Type of License that the Solid Waste Facility Supervisor, as defined in 30 TAC Chapter 30, Occupational Licenses and Registrations, will obtain prior to commencing facility operations.

☐ Class A ☒ Class B

19. Ownership Status of the Facility

☐ Corporation	☐ Limited Partnership	☒ Federal Government
☐ Individual	☐ City Government	☐ Other Government
☐ Sole Proprietorship	☐ County Government	☐ Military
☐ General Partnership	☐ State Government	☐ Other (Specify):

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):

20. Other Governmental Entities Information

Texas Department of Transportation District: El Paso District #24

District Engineer's Name: **Robert Bielek, DPA, P.E.**

Street Address or P.O. Box: **13301 Gateway West**

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79928**

(Area Code) Telephone Number: **915-790-4203**

E-Mail Address (optional):

The Local Governmental Authority Responsible for Road Maintenance (if applicable): Fort Bliss

Contact Person's Name: **Joey Ruiz/Emilio Escandon**

Street Address or P.O. Box: **IMWE-BLS-PW, Building 777**

City: **Fort Bliss** County: **El Paso** State: **TX** Zip Code: **79916**

(Area Code) Telephone Number: **915-568-7399/915-568-7460**

E-Mail Address (optional):

City Mayor Information

City Mayor's Name: **Dee Margo**

Office Address: **300 N. Campbell**

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79901**

(Area Code) Telephone Number: **915-212-0021**

E-Mail Address (optional):

City Health Authority: City of El Paso Department of Public Health

Contact Person's Name: **Hector Ocaranza**

Street Address or P.O. Box: 5115 El Paso Drive

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79905**

(Area Code) Telephone Number: **915-212-0200**

E-Mail Address (optional): **hocaranza@sbcglobal.net**

County Judge Information

County Judge's Name: **Veronica Escobar**

Street Address or P.O. Box: **500 E. San Antonio, Ste. 30**

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79901**

(Area Code) Telephone Number: **915-546-2098**

E-Mail Address (optional):

County Health Authority: None exists. Please refer to City of El Paso Department of Public Health (above)

Contact Person's Name:

Street Address or P.O. Box:

City: County: State: Zip Code:

(Area Code) Telephone Number:

E-Mail Address (optional):

State Representative Information

District Number: **79**

State Representative's Name: **Joe Pickett**

District Office Address: **1790 Lee Trevino #307**

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79936**

(Area Code) Telephone Number: **915-590-4349**

E-Mail Address (optional):

State Senator Information

District Number: **29**

State Senator's Name: **The Honorable Jose Rodriguez**

District Office Address: **100 N. Ochoa, Suite A**

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79901**

(Area Code) Telephone Number: **915-351-3500**

E-Mail Address (optional):

Council of Government (COG) Name: Rio Grande Council of Governments

COG Representative's Name: **Annette Gutierrez**

COG Representative's Title: **Executive Director**

Street Address or P.O. Box: **8037 Lockheed Drive, Ste. 100**

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79925**

(Area Code) Telephone Number: **915-533-0998 x 114**

E-Mail Address (optional):

River Basin Authority Name: International Boundary & Water Commission

Contact Person's Name: **Gilbert Anaya**

Watershed Sub-Basin Name: **Tularosa Closed Basin**

Street Address or P.O. Box: **4171 N. Mesa Street, Ste. C-100,**

City: **El Paso** County: **El Paso** State: **TX** Zip Code: **79902**

(Area Code) Telephone Number: **915-832-4702**

E-Mail Address (optional):

Coastal Management Program

Is the facility within the Coastal Management Program boundary?

☐ Yes ☒ No

U.S. Army Corps of Engineers

The facility is located in the following District of the U.S. Army Corps of Engineers:

☐ Albuquerque, NM ☐ Galveston, TX

☒ Ft. Worth, TX ☐ Tulsa, OK

Local Government Jurisdiction

Within City Limits of: **NA**

Within Extraterritorial Jurisdiction of: **NA**

Is the facility located in an area in which the governing body of the municipality or county has prohibited the storage, processing or disposal of municipal or industrial solid waste?

☐ Yes ☒ No

(If "Yes", provide a copy of the ordinance or order as an attachment):

Signature Page

I, Alfredo J. Riera, P.E., Director, Fort Bliss Directorate of Public Works,
(Site Operator (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: 3/27/18

- -

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 Alfredo J. Riera
On this 27 day of March, 2018
My commission expires on the 30 day of 10, 2021
_____
Notary Public in and for
El Paso County, Texas
(Note: Application Must Bear Signature & Seal of Notary Public)

NOTARY PUBLIC STATE OF TEXAS
LEROY DOTEY
Notary Public, State of Texas
Comm. Expires 10-30-2021
Notary ID 131333332

Part I Attachments

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

Required Attachments	**Attachment No.**
Supplementary Technical Report	Part I, Section 1
Property Legal Description	Part I, Section 4
Property Metes and Bounds Description	Part I, Section 4
Facility Legal Description	Part I, Section 4
Facility Metes and Bounds Description	Part I, Attachment A
Metes and Bounds Drawings	Part I, Attachment A
On-Site Easements Drawing	Part II, Figure II.10
Land Ownership Map	Part I, Figure I.3
Land Ownership List	Part I, Section 3
Electronic List or Mailing Labels	NA
Texas Department of Transportation (TxDOT) County Map	Part I, Figure I.1
General Location Map	Part I, Figure I.1
General Topographic Map	Part II, Figure II.3
Verification of Legal Status	Part I, Section 5
Property Owner Affidavit	Part I, Attachment B
Evidence of Competency	Part I, Section 6

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

☐ TCEQ Core Data Form(s)	
☐ Signatory Authority Delegation	
☒ Fee Payment Receipt	Part I, Attachment D
☐ Confidential Documents	
☐ Waste Storage, Processing and Disposal Ordinances	
☒ Final Plat Record of Property	Part I, Attachment A
☐ Certificate of Fact (Certificate of Incorporation)	
☐ Assumed Name Certificate	

TCEQ

TCEQ Use Only

TCEQ Core Data Form

For detailed instructions regarding completion of 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

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 600126262		RN 100210095

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:*

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

11. Type of Customer:	☐ Corporation	☐ Individual	Partnership: ☐ General ☐ Limited
Government: ☐ City ☐ County ☒ Federal ☐ State ☐ Other		☐ Sole Proprietorship	☐ Other:

12. Number of Employees	13. Independently Owned and Operated?
☐ 0-20 ☐ 21-100 ☐ 101-250 ☐ 251-500 ☒ 501 and higher	☐ 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 ☐ Voluntary Cleanup Applicant ☐ Other:

15. Mailing Address:							
	City		State		ZIP		ZIP + 4

16. Country Mailing Information *(if outside USA)*	17. E-Mail Address *(if applicable)*

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

SECTION III: Regulated Entity Information

21. General Regulated Entity Information *(If 'New Regulated Entity" is selected below this form should be accompanied by a permit application)*

☐ 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 Agency 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.)*

Fort Bliss Bio-Cell

23. Street Address of the Regulated Entity: *(No PO Boxes)*	no street address							
	City	Fort Bliss	State	TX	ZIP	79916	ZIP + 4	
24. County	El Paso							

Enter Physical Location Description if no street address is provided.

25. Description to Physical Location:	At intersection of Liberty Expy and Chaffee Rd, go north on Chaffee Rd for 4 miles. Turn east onto access road. Drive east for 0.5 miles to the entrance gate.

26. Nearest City	State	Nearest ZIP Code
Fort Bliss	TX	79916

27. Latitude (N) In Decimal:	31.876744		28. Longitude (W) In Decimal:	106.3932	
Degrees	Minutes	Seconds	Degrees	Minutes	Seconds
31	52	36.2784	106	23	35.52

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)
9711	4953	928110	562219

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

bioremediation cell

34. Mailing Address:	U.S. Garrison Fort Bliss							
	777 Pleasonton Road							
	City	Fort Bliss	State	TX	ZIP	79916	ZIP + 4	
35. E-Mail Address:	alfredo.j.riera.civ@mail.mil							

36. Telephone Number	37. Extension or Code	38. Fax Number *(if applicable)*
(915) 568-6200		( ) -

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
			2865	
☐ Municipal Solid Waste	☐ New Source Review Air	☐ OSSF	☐ Petroleum Storage Tank	☐ PWS
☐ Sludge	☒ Storm Water	☐ Title V Air	☐ Tires	☐ Used Oil
	WatQual TXR05D076			
☐ Voluntary Cleanup	☐ Waste Water	☐ Wastewater Agriculture	☐ Water Rights	☐ Other:

SECTION IV: Preparer Information

40. Name:	Lilia Lenhart	41. Title:	Environmental Engineer

42. Telephone Number	43. Ext./Code	44. Fax Number	45. E-Mail Address
(915) 568-5724		( ) -	lilia.a.lenhart.civ@mail.mil

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:	U.S.Garrison Fort Bliss	Job Title:	Director of Public Works
Name*(In Print)* :	Alfredo J. Riera, P.E.	Phone:	(915) 568-6200
Signature:		Date:	4/30/18