Michael Baker INTERNATIONAL

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FUGITIVE DUST CONTROL PLAN

Prepared for: Waste Management

Waste Management National Services, Inc.

WASTE MANAGEMENT

ENERGY • WATER • COMMUNITY SERVICES

Lower Colorado River Authority Fayette Power Project

La Grange, Texas

December 2021

Michael Baker Project No. 187313

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LIST OF ACRONYMS

CBL	Combustion Byproduct Landfill
CCR	Coal Combustion Residual
CFR	Code of Federal Register
FDCP	Fugitive Dust Control Plan
FGD	Fluidized Gas Desulfurization
FPP	Fayette Power Project
LCRA	Lower Colorado River Authority
LOI	Loss on Ignition
TCEQ	Texas Commission on Environmental Quality
WMNS	Waste Management National Services, Inc.

REVIEW AND REVISIONS LOG

§257.80(b)(5) and§257.80(b)(6)

Date of Review/Revision	Description of Review/Revision	Reviewer(s)
October 6, 2015	Initial Plan	Michael Baker International
September 2021	Plan update to include Synthetic Gypsum Building	Michael Baker International
December 2021	Plan updates to the control measures and facility site map	Michael Baker International

1.0 INTRODUCTION

The purpose of this Fugitive Dust Control Plan (FDCP) is to maintain compliance with 40 Code of Federal Regulations (CFR) Part 257.80 and 30 Texas Administrative Code (TAC) 352.801 which requires owners and operators of Coal Combustion Residual (CCR) landfills to adopt measures that will effectively minimize CCR from becoming airborne at the facility, including CCR fugitive dust originating from CCR units, roads, and other CCR management and material handling activities. Furthermore, the Texas Commission on Environmental Quality (TCEQ) adopted 40 CFR 257.80 by reference in 30 TAC 352.801. Therefore, references to the federal rule are inclusive of the TCEQ rule.

This FDCP identifies the dust control measures utilized at the Lower Colorado River Authority (LCRA) Fayette Power Project (FPP) landfill facility located at 6549 Power Plant Road, La Grange, TX 78945 under the management of Waste Management National Services, Inc. (WMNS).

2.0 PROFESSIONAL ENGINEER CERTIFICATION §257.80(b)(7)

It is recognized that the LCRA FPP is subject to the CCR Rule which requires preparation and implementation of a Fugitive Dust Control Plan (FDCP), and specifically requires a Professional Engineer's review and certification in accordance with 40 CFR 257.80(b)(7) Therefore, I, Christopher G. Gesing, attest that:

(i) I am familiar with the requirements of the 40 CFR 257.80 rule,
(ii) WMNS representative is responsible for providing the correct, updated information,
(iii) This FDCP has been prepared in accordance with good engineering practice, including consideration of applicable industry standards, and with the requirements of the rule,
(iv) Procedures for implementation have been established, and
(v) The FDCP is adequate for the Facility.

I certify that I am familiar with the 40 CFR 257.80 regulation and that the provisions of the FDCP have been prepared in accordance with good engineering practices and meet the requirements of 40 CFR 257.80 and contained herein is, to the best of my knowledge and belief, true, accurate, and complete. This certification shall in no way relieve WMNS of their duty to fully implement and annually review, update, and recertify this FDCP.

(SEAL)

12/20/2021
Name Date

Christopher G. Gesing, PE
License Number PE99840

3.0 POTENTIAL SOURCES OF DUST AND DUST CONTROL MEASURES §257.80(b)(1) and §257.80(b)(2)

WMNS provides operation and maintenance services for the management of CCRs generated at the LCRA FPP, a coal-fired power plant located near La Grange, Fayette County, Texas. The Combustion Byproduct Landfill (CBL) is registered by the TCEQ as an on-site nonhazardous industrial solid waste landfill (TCEQ Registration No. 31575/Notice of Waste Registration No. MU013). The CBL currently receives CCRs generated during the operation and maintenance of the three coal-fired units at LCRA FPP including: fly ash, bottom ash, and synthetic gypsum.

A facility site map showing the CCR unit (CBL), CCR management areas, and roads utilized for transportation of CCRs to the CBL, is provided in **Appendix A**.

3.1 Plant Combustion Byproduct Landfill (CBL)

CCR materials from the LCRA FPP are taken by WMNS to the onsite CBL.

CBL Control Measures	
Control/Activity	**Description**
Compaction	• LCRA requires that CCR placed in the landfill for permanent disposal be compacted via a vibratory smooth drum roller capable of meeting the landfill design compaction standards. WMNS utilizes a CAT CS573 or equivalent vibratory smooth drum roller for CCR compaction. If the "crust" is broken, the area is watered and re-compacted to control wind & water erosion.
Conditioning	• Fly ash and bottom ash may require conditioning to increase the moisture content to optimal conditions for compaction (i.e., 11.4% and 36.5%, respectively) prior to compaction. Fly Ash and Synthetic Gypsum that is properly compacted will normally form a "crust" that resists water and wind erosion. The various CCR from the facility have different moisture contents: ➢ Fly ash <1% ➢ Bottom ash ~27% ➢ Synthetic gypsum ~20%
Interim cover	• Once a portion of the fill area has reached temporary or final grade, WMNS operators will avoid running equipment on these areas until an interim cover of bottom ash or other suitable material is applied. Interim cover is not needed on a daily basis since the material crusts over and prevents fugitive dust from becoming airborne.
Vegetative cover / mulching	• If landfill areas are not anticipated to be active for extended periods of time, WMNS will establish temporary stabilization measures which may include applying temporary seed mixture and mulching the applicable landfill surface. Vegetation or other cover may be placed to aid in prevention of fugitive dusts from becoming airborne.

CBL Control Measures	
Control/Activity	**Description**
Reducing fall distances at material drop points	• When products are transferred to the landfill, products exit the truck bed directly onto the landfill surface. Thus, fall distances at material drop points have been reduced as much as possible for all CCRs.
Reducing or halting operations	• WMNS may, at the determination of on-site WMNS and/or facility personnel, temporarily suspend major loading/unloading operations during high wind events (> 40 mph).
Wet system - sprinkler	• Landfill utilizes a mobile sprinkler unit to wet and condition the landfill material as needed. • Additional sprinkler systems may be used as needed when conditions warrant.
Wet system - water truck	• WMNS water truck with a sprayer is utilized to augment the sprinkler system for moisture addition to CCR materials and dust suppression (e.g., additional water application on the windward sides of the CBL during hot, dry, and windy conditions to minimize dusting). • Minimum amount of water is used to avoid saturating the ash.
Vehicle traffic restrictions	• Vehicle traffic is restricted in inactive landfill areas to avoid breaking formed "crust", to prevent fugitive emissions.

3.2 CCR Handling

WMNS is responsible for removing the bottom ash from the concrete bunkers within the power plant units. The bottom ash is either transported off-site for beneficial use or is managed in the CBL.

Generated fly ash is pneumatically transferred via closed pipeline to ash silos for storage. WMNS is responsible for loading fly ash stored in the ash silos into pneumatic trucks for transport off-site for beneficial reuse as part of marketing efforts or in trucks for transport to the landfill. Fly ash not transported off-site or not staged for beneficial use will be conditioned to meet the optimum moisture content to achieve compaction when placed in the CBL landfill.

Synthetic gypsum, generated from the LCRA FPP Fluidized Gas Desulfurization (FGD) scrubber system, is transferred via conveyor into the synthetic gypsum dome. The synthetic gypsum dome is constructed on an impervious concrete pad with run-on and run-off controls. The synthetic gypsum dome is enclosed except for two openings to allow for trucks to pull through the dome for loading, while being fully within the dome to minimizing fugitive dust emissions. This material is either loaded into covered third party trucks for off-site beneficial reuse, transported to the CBL for temporary storage or into the synthetic gypsum building for future beneficial reuse. The synthetic gypsum building consists of a covered 60 by 140 ft building with a concrete foundation, 6 bays, and 5 ft high perimeter push wall on three sides. The front of building is open to allow

for equipment access and is curbed to prevent run-on into the building. Synthetic gypsum is stored to the back of the building to minimize fugitive dust emissions.

CCR Handling Control Measures	
Control/Activity	**Description**
Reducing fall distances at material drop points	• Bottom ash is transferred from the concrete bunkers via dump trucks to the CBL for staging prior to off-site beneficial use. Bottom ash has sufficient moisture content at this point in the process to prevent dusting. • Fly ash is transferred from several silos and dispensed via telescopic chutes directly into pneumatic trucks. • Synthetic gypsum is transferred into the synthetic gypsum dome or the covered synthetic gypsum building from the lowest practical point. Synthetic gypsum has sufficient moisture content at this point in the process to prevent dusting.
Storing inside an enclosure or partial enclosure	• WMNS regularly inspects the fly ash silos and notifies LCRA FPP when maintenance needs are identified. • Fly ash silo management practices include: ➢ Daily operation/monitoring of all equipment that supports the storage, loading, and weighing of all fly ash delivered to the silos. ➢ Maintain the silo at or below normal operating capacity (roughly 1,600 tons each for Silo 1 and 2; and 3,600 tons each for Silo 3A and 3B). ➢ Maintain proper moisture content – collect daily samples for moisture content, Loss on Ignition (LOI), and fineness. ➢ Inspect silos, pipes, and other equipment for repair needs. ➢ Silo area will be washed down at the end of each day and the silo area will be kept neat and orderly. • Synthetic Gypsum is managed in the synthetic gypsum dome and the covered synthetic gypsum building that is enclosed on three sides with curb protection. Drier gypsum is transferred to the synthetic gypsum building to provide low moisture content material for off-site beneficial use during heavy rain periods.
Stockpiling	• Occasionally there may be times when generation exceeds demand, WMNS stockpiles CCR within the landfill in segregated piles awaiting sales. • In the synthetic gypsum dome the synthetic gypsum is continually transferred and there is no accumulation. • In the synthetic gypsum building each of the 6 bays are emptied completely at least every 12 months and the empty bay photographed for documentation.

CCR Handling Control Measures	
Control/Activity	**Description**
Truck wash stations	• Truck wash stations are situated at Ash Silos 1 & 2 and at Silos 3A & 3B. Truck wash stations are used to rinse the sealed pneumatic trucks hauling fly ash. • Trucks hauling CCR material are periodically brushed to remove any excess CCR materials accumulated on the wheel wells or bumpers, as needed. • Trucks hauling CCR materials within the LCRA FPP shall be emptied and cleaned of excess materials at the end of each day. • WMNS will communicate with the drivers of the trucks leaving the facility to ensure they are utilizing the truck wash as required.
Reducing or halting operations	• WMNS may, at the determination of on-site WMNS and/or facility personnel, temporarily suspend major loading/unloading operations during high wind events (> 40 mph).

3.3 Plant Roads (Paved and Unpaved)

Plant roads, used to transport CCR materials from the fly ash storage silos, bottom ash storage bunkers, synthetic gypsum dome and synthetic gypsum building to the CBL, are predominantly paved throughout the LCRA FPP except for non-permanent plant roads around the CBL that are unpaved due to the nature of operations. All trucks hauling CCR materials must stay on designated plant roads and adhere to the posted speed limit. Water is used by WMNS on all paved roads, actively used unpaved perimeter road, all landfill roads and areas, to reduce fugitive dust emissions.

Plant Roads Control Measures	
Control/Activity	**Description**
Surface treatment	• WMNS has elected to utilize wet suppression methods exclusively employing only water from Lake Fayette via water truck application on all paved/unpaved facility and landfill roads. • Dust suppression efforts are implemented per the water truck schedule provided weekly by LCRA FPP, and when visible observations indicate a need for corrective measures. The frequency of application depends on season, relative moisture of the surface, wind speed, air temperature and volume of vehicle traffic. • Water truck fill stations are located throughout the facility. Additional truck fill stations may be added during dryer months.
Vehicle speed limits	• The speed limit is restricted and clearly posted throughout the facility. It varies between 10 mph on smaller roads and up to 30 mph on paved, facility roads. • The speed limit is enforced by facility security personnel.

Plant Roads Control Measures	
Control/Activity	**Description**
Enclosed/covered trucks	• Dump trucks hauling CCR materials to the CBL utilize tailgates and adequate freeboard to prevent spillage. • Sealed pneumatic trucks are used to transport fly ash that is sold for off-site beneficial use. • Dump trailers used to transport bottom ash and synthetic gypsum for off-site beneficial use utilize tailgates, tarps, and adequate freeboard to prevent spillage.
Unpaved road maintenance	• Unpaved road maintenance includes adding bottom ash, grading, cleaning, and other actions required to provide continuous access during wet and dry weather conditions within the landfill area. • Paved roads shall be kept free of CCR material and spilled materials shall be cleaned up and managed appropriately.

4.0 LANDFILL LATERAL EXPANSION

If LCRA FPP decides to laterally expand the landfill, WMNS will amend this plan to incorporate and reflect any applicable changes.

5.0 CITIZEN COMPLAINTS §257.80(b)(3)

WMNS will manage fugitive dusts and eliminate or minimize the impact on the population in the surrounding communities. However, should community complaints occur WMNS will log complaints and corrective measures in the recordkeeping sheet contained in **Appendix B** in compliance with 40 CFR 257.80(b)(3).

If LCRA FPP or WMNS receives a citizen complaint related to the landfill or its associated network of roads and vehicles, WMNS will:

- Investigate the issue and develop a strategy to immediately resolve the issue(s)
- Verify the remedy is sufficient
- Record the event and resolution in the Citizen Complaint Log contained in **Appendix B**
- Notify LCRA personnel that the issue has been resolved

LCRA FPP provides information concerning any citizen complaint to WMNS monthly. If certain complaints become more frequent, WMNS will partner with LCRA FPP personnel to develop additional and improved solutions to prevent recurrence.

6.0 REVIEW AND RECORDKEEPING §257.80(b)(4)

In compliance with 40 CFR 257.80(b)(4), the FDCP will be annually reviewed. As part of the assessment, all processes and procedures will be reviewed for their effectiveness and efficiency at minimizing or eliminating the generation of fugitive dust. WMNS will annually review the:

- FDCP for accuracy, current practices, and areas of deficiencies
- Dust control measures that are ineffective and/or necessitate improvement
- Summary log of citizen complaints to identify potentially recurring themes
- Facility operations for any new/modified operations requiring incorporation into the FDCP

Upon review, WMNS will develop and adopt new/additional strategies to better manage any identified deficiencies. In compliance with 40 CFR 257.80(b)(6), WMNS will amend the written plan whenever there is a change in conditions that would substantially affect the FDCP, such as the construction and operation of a new CCR unit.

WMNS will implement the new FDCP and train responsible employees on applicable changes immediately upon plan revision/implementation. The WMNS Site Manager will enforce the FDCP.

7.0 ANNUAL REPORT §257.80 (c)

See **Appendix C** for a copy of the Annual Report to be completed annually by WMNS. The annual report will include:

- Description of the actions taken to control CCR fugitive dust
- Record of all citizen complaints
- Summary of any corrective measures taken

The deadline for completing a subsequent report is one year after the date of completing the previous report.

8.0 RECORDKEEPING REQUIREMENTS §257.80 (d)

This FDCP is in addition to, not in place of, any other applicable facility permits, environmental standards, or work safety practices. The FDCP will be placed in the facility operating record per §257.105(g)(2), the State Director will be notified per §257.106(g)(1) and (2) and posted to the publicly accessible internet site per §257.107(g)(1) and (2).

APPENDIX A
Facility Site Map

K:_WASTE MANAGEMENT\148039 FUGITIVE DUST MANAGEMENT PLAN\LCRA FAYETTE POWER PROJECT\187313_POWER_01.DWG

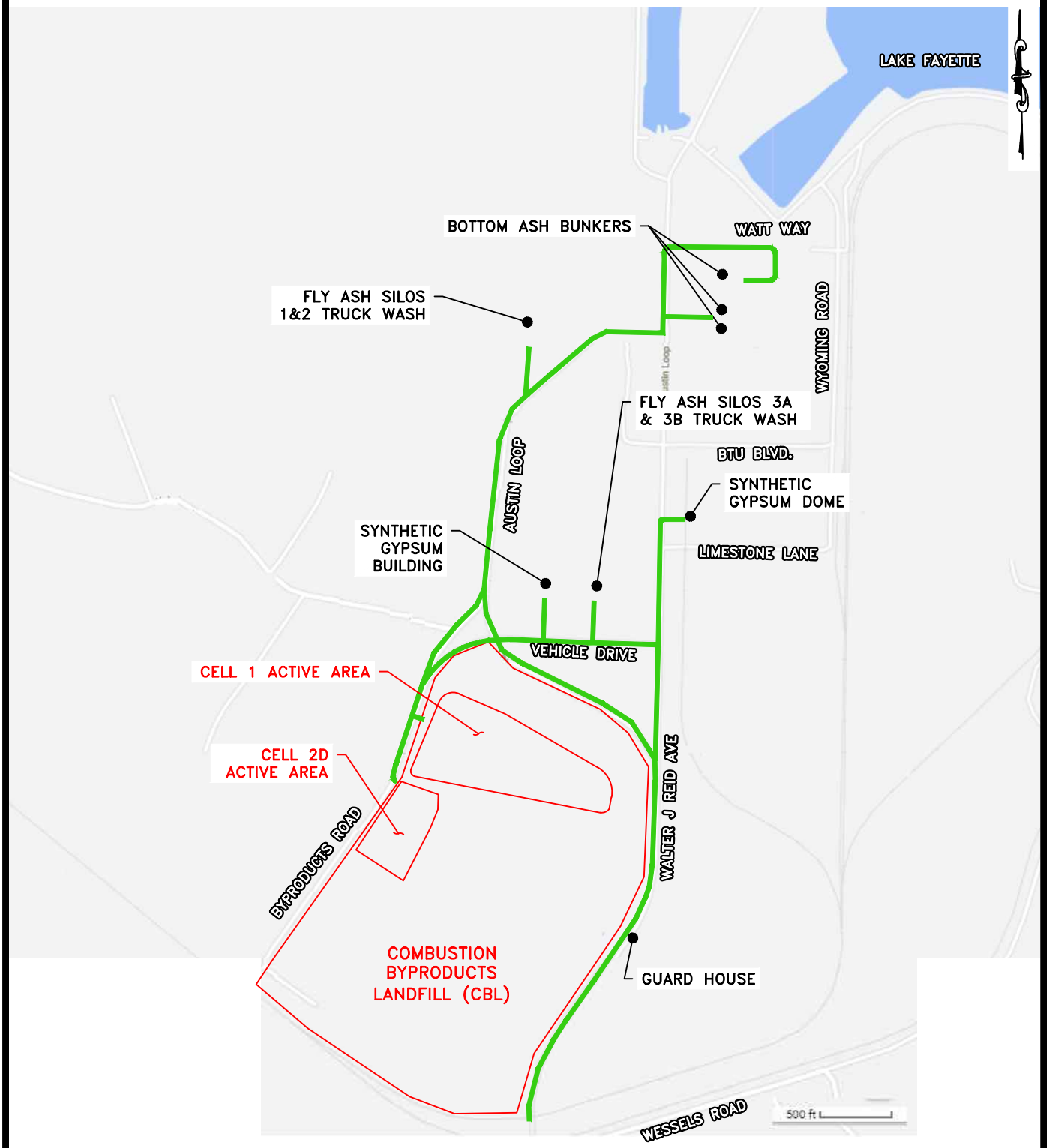

FIGURE 1
SITE LAYOUT MAP
LCRA FAYETTE POWER PROJECT
6549 POWER PLANT ROAD
LA GRANGE, TX 78945

LEGEND:
—POTENTIAL TRUCK ROUTES

SCALE: 0 1000
S.O. NO.: 182353
DSN/DWN: HS/RR
DATE: DECEMBER 2021
FILE: 187313_POWER_01
CHK: HS/CH

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MICHAEL BAKER INTERNATIONAL
MOON TOWNSHIP, PENNSYLVANIA

APPENDIX B
Citizen Complaint Log

Citizen Complaint Log

Reported		Citizen / Contact Information	Nature of Citizen Complaint				Corrective Action Taken	Date Issue Resolved
Date	Time		Date	Time	Location	Description		

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APPENDIX C
Annual Report

ANNUAL REPORT

Reporting Year:	

Description of Actions to Control Fugitive Dust:	Place a copy of all methods contained in the Best Management (Section III) and/or provide specifics in the space below:

Citizen Complaints:	Place a copy of all citizen complaints recorded in Appendix A.

Comments:	