



McIntosh Power Plant Coal Combustion Residuals Fugitive Dust Control Plan

Lakeland Electric
McIntosh Power Plant
3030 East Lake Parker Drive
Lakeland, Florida 33805

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1.0 INTRODUCTION

This coal combustion residual (CCR) Fugitive Dust Control Plan (Plan) has been prepared by the City of Lakeland Electric Department (Lakeland Electric or LE) to ensure compliance with U.S. Environmental Protection Agency (USEPA) requirements in 40 CFR Section 257.80 and Florida Department of Environmental Protection (FDEP) conditions of certification (COC) under Section 403.516(1)(c), Florida Statutes. The Plan is established to identify those measures to be implemented at Lakeland Electric's McIntosh Power Plant (MPP) to minimize CCR from becoming airborne at the facility from CCR units, roads, or other CCR management and material handling activities.

This Plan describes not only the methods to be used by Lakeland Electric to minimize CCR fugitive dust emissions but includes additional procedures which will be implemented if CCR fugitive dust is observed or if citizen complaints concerning CCR fugitive dust are received. The Plan provides procedures for assessing the effectiveness of the dust control measures which will be summarized in an annual CCR fugitive dust control report (described in Section 6.0 below).

LE has now permanently ceased all operations of McIntosh Unit 3, fossil fuel-fired steam generator (EU 006), the diesel-fired Coal Tunnel Sump Engine (EU 008), fly ash handling and storage system (EU 027), and all activities related to the coal pile and the ash monofil. The monofil has not been officially closed and there will still be some activities when material from the wastewater ponds will be deposited. As a result, this CCR dust control plan only includes procedures for controlling fugitive dust from the wastewater sedimentation pond, transportation of pond sediments, and the ash monofil.

The Plan is reviewed annually to ensure compliance with the requirements of 40 CFR Section 257.80.

1.1 General Facility Information

The following information summarizes the key facility and contact information for the MPP.

Name of Facility	McIntosh Power Plant
Type	Electric Power Generation NAICS Code: 2211 (Fossil Fuels)
Location	3030 East Lake Parker Drive Lakeland, Florida 33805-9513
Name and Address of Owner	City of Lakeland, Lakeland Electric Department 501 East Lemon Street Lakeland, Florida 33801-5050
Contact Information	863-834-6600

2.0 FACILITY DESCRIPTION

MPP is one of three power plants owned and operated by Lakeland Electric. MPP currently has a combined generation capacity of 515 megawatts (MW) which consists of two 2.5 MW diesel peaking units, a 20 MW natural gas/diesel combustion turbine unit (MGT1), a 120 MW natural gas/diesel combustion turbine unit (MGT 2), and a 370 MW combined cycle natural gas unit (Unit 5). Unit 3 was retired in April 2021, which was the only coal fired unit at MPP. Lakeland Electric plans to also retire MGT2, although the official retirement date is not available yet.

With the retirement of Unit 3, the only coal-fired unit at MPP, generation of byproducts such as fly ash, bottom ash, and synthetic gypsum (a flue gas desulfurization product) have ceased. The fly ash, bottom ash, and gypsum storage and loading facilities have been removed. Therefore, almost all of the CCR dust generation sources have been removed from the MPP.

Stormwater from the byproduct storage areas were collected into the southern sedimentation pond for evaporation or transport to the process water pond system. The water in these ponds are currently being pumped out and all sediments from the pond will be dug out and transported to the ash monofill. It is understood that there are CCRs in the pond sediments and therefore, handling and transportation of pond sediments is a potential source of CCR fugitive dust.

As the pond sediments are deposited in the monofill and placed under cover, CCR fugitive dust may be generated. Until the closure of the monofill, the remaining potential CCR dust sources at the MPP are –

- Southern sedimentation pond
- Process ponds
- Transportation of pond sediments to the monofill
- Ash monofill

The exterior of the Byproduct Storage Area (BSA) is made from byproducts that have been treated to become a stabilized pozzolanic material with a low percolation coefficient. This material repels storm water, which in the southern portion of the BSA is collected by a soil-cement lined ditch that conveys storm water to the southern sedimentation pond for evaporation or transport to the process water pond system. The ditch surrounding the northern, grassed portion of the BSA conveys non-contact storm water to Fish Lake.

3.0 CCR FUGITIVE DUST CONTROL PROCEDURES

Air emissions from MPP are regulated and the facility is currently operating under a Title V Air Operating Permit issued by the FDEP. The Title V permit is renewed every 5 years and revised as needed to incorporate new projects authorized by air construction permits. The permit requires that unconfined or fugitive emissions from MPP be reduced.

Specifically, Rule 62- 296.320(4)(c) of the Florida Administrative Code (F.A.C.) and Specific Condition No. FW5 of the above-referenced permit require the following:

Unconfined Emissions of Particulate Matter

No person shall cause, let, permit, suffer or allow the emissions of unconfined particulate matter from any activity, including vehicular movement; transportation of materials construction, alteration, demolition or wrecking; or industrially related activities such as loading, unloading, storing or handling; without taking reasonable precautions to prevent such emissions. Reasonable precautions to prevent emissions of unconfined particulate matter at the facility include:

- a. Maintenance of paved areas;*
- b. Regular mowing of grass and care of vegetation;*
- c. Limiting access to plant property by unnecessary vehicles;*

In accordance with these requirements, Lakeland Electric takes reasonable precautions to prevent generation of fugitive dust.

Lakeland Electric will continue with the reasonable precautions to prevent generation of fugitive dust in general and will employ the following to control and manage CCR fugitive dust:

- Visual inspection of pond sediment extraction activities and application of water spray if visible dust is present.
- Trucks transporting pond sediments containing CCR from the pond to the monofill will be instructed to maintain speed of 15 miles per hour or less.
- Open-bed trucks transporting pond sediments containing CCR from the pond to the monofill will be completely covered if the moisture content of the material is low enough to create dust.
- Unpaved road surfaces used by the pond sediment trucks will be watered as necessary to minimize presence of visible dust. . Water truck usage will be directed by the Shift Handling Supervisor and the watering schedule will be adjusted based on relevant conditions such as air temperature, recent precipitation, and high-wind conditions. Additional water truck usage can be requested by plant supervisors, as needed. Watering will not be applied if raining or the road surface is already wet from overnight rain.
- After the pond sediments are placed in the monofill, cover material will be placed as soon as possible.
- LE will continue to implement and maintain a vegetative cover over inactive areas of the monofill.
- Watering will be used to control fugitive dust generated by the operation of front-end loaders and bulldozers at the monofill during the placement of pond sediments as needed.

3.1 Control Measure Assessment

The fugitive dust control measures will be assessed during the pond sediment extraction process and placement of the sediments in the monofill. The shift supervisor will monitor the remaining CCR fugitive dust sources at the MPP for the presence of visible dust. If visible dust is present, Lakeland Electric will employ fugitive dust control procedures and implement appropriate corrective actions as needed. Additional inspections will be performed if any citizen complaints are received regarding CCR fugitive dust emissions.

3.2 Training

The training will include a review the fugitive dust control plan, the performance of inspections, identification of CCR fugitive dust sources, identifying when corrective actions are required, and control measures.

4.0 DUST COMPLAINT PROCEDURES

Any citizen complaints regarding CCR fugitive dust emissions will be recorded as an Incident Report in Maximo¹ as provided in Lakeland Electric's Incident Report Protocol. In such instances, the Operation Shift Supervisor and Plant Manager will be notified of

¹ Maximo is an asset management life cycle and workflow process management system. One of its functions is to track incidents from creation to resolution.

the incident as soon as possible. The CCR dust generating sources and associated dust control measures will be evaluated and corrective actions initiated, if needed. Any complaints will be followed up and will include the following actions: investigation of plant operations at the time of the event, review inspection records, interview appropriate plant personnel, review current weather conditions, and contact of the person making the complaint to obtain additional information to ensure the incident has been addressed. A log of CCR fugitive dust complaints will be maintained in the operating record (log should include date/time, nature of complaint, corrective action or finding).

5.0 RECORDKEEPING, NOTIFICATION AND INTERNET SITE

The Plan, including any amendments to the Plan, and Annual CCR Fugitive Dust Control Report (described in Section 6.0 below) will be kept in MPP's written operating record and will be posted on a publicly accessible Internet site in accordance with 40 CFR Sections 257.105 and 257.107.

6.0 ANNUAL REPORT

Lakeland Electric will prepare an Annual CCR Fugitive Dust Control Report describing the actions taken to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. The initial annual report will be completed no later than 14 months after placing the initial Plan in the facility's operating record. Subsequent reports will be completed on or before a year after the date of completing the previous annual report.

APPENDICES

APPENDIX A – 40 CFR Section 257.80 – Air Criteria

APPENDIX B – Records of Plan Revisions

APPENDIX A – 40 CFR Section 257.80 – Air Criteria

- (a) The owner or operator of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit must 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.
- (b) *CCR fugitive dust control plan.* The owner or operator of the CCR unit must prepare and operate in accordance with a CCR fugitive dust control plan as specified in paragraphs (b)(1) through (7) of this section. This requirement applies in addition to, not in place of, any applicable standards under the Occupational Safety and Health Act.
 - (1) The CCR fugitive dust control plan must identify and describe the CCR fugitive dust control measures the owner or operator will use to minimize CCR from becoming airborne at the facility. The owner or operator must select, and include in the CCR fugitive dust control plan, the CCR fugitive dust control measures that are most appropriate for site conditions, along with an explanation of how the measures selected are applicable and appropriate for site conditions. Examples of control measures that may be appropriate include: Locating CCR inside an enclosure or partial enclosure; operating a water spray or fogging system; reducing fall distances at material drop points; using wind barriers, compaction, or vegetative covers; establishing and enforcing reduced vehicle speed limits; paving and sweeping roads; covering trucks transporting CCR; reducing or halting operations during high wind events; or applying a daily cover.
 - (2) If the owner or operator operates a CCR landfill or any lateral expansion of a CCR landfill, the CCR fugitive dust control plan must include procedures to emplace CCR as conditioned CCR. Conditioned CCR means wetting CCR with water to a moisture content that will prevent wind dispersal, but will not result in free liquids. In lieu of water, CCR conditioning may be accomplished with an appropriate chemical dust suppression agent.
 - (3) The CCR fugitive dust control plan must include procedures to log citizen complaints received by the owner or operator involving CCR fugitive dust events at the facility.
 - (4) The CCR fugitive dust control plan must include a description of the procedures the owner or operator will follow to periodically assess the effectiveness of the control plan.
 - (5) The owner or operator of a CCR unit must prepare an initial CCR fugitive dust control plan for the facility no later than October 19, 2015, or by initial receipt of CCR in any CCR unit at the facility if the owner or operator becomes subject to this subpart after October 19, 2015. The owner or operator has completed the initial CCR fugitive dust control plan when the plan has been placed in the facility's operating record as required by §257.105(g)(1).
 - (6) *Amendment of the plan.* The owner or operator of a CCR unit subject to the requirements of this section may amend the written CCR fugitive dust control plan at any time provided the revised plan is placed in the facility's operating record as required by §257.105(g)(1). The owner or operator must amend the written plan

whenever there is a change in conditions that would substantially affect the written plan in effect, such as the construction and operation of a new CCR unit.

- (7) The owner or operator must obtain a certification from a qualified professional engineer that the initial CCR fugitive dust control plan, or any subsequent amendment of it, meets the requirements of this section.
- (c) *Annual CCR fugitive dust control report.* The owner or operator of a CCR unit must prepare an annual CCR fugitive dust control report that includes a description of the actions taken by the owner or operator to control CCR fugitive dust, a record of all citizen complaints, and a summary of any corrective measures taken. The initial annual report must be completed no later than 14 months after placing the initial CCR fugitive dust control plan in the facility's operating record. The deadline for completing a subsequent report is one year after the date of completing the previous report. For purposes of this paragraph (c), the owner or operator has completed the annual CCR fugitive dust control report when the plan has been placed in the facility's operating record as required by §257.105(g)(2).
- (d) The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in §257.105(g), the notification requirements specified in §257.106(g), and the internet requirements specified in §257.107(g).

APPENDIX B – Records of Plan Revisions

