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ANNUAL CCR FUGITIVE DUST CONTROL REPORT

SAN MIGUEL ELECTRIC COOPERATIVE, INC.

January 28, 2021

Prepared for:

San Miguel Electric Cooperative, Inc.
6200 FM 3387
Christine, Atascosa County, Texas 78012

Prepared by:

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BBA Project No. 20379

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1.0 INTRODUCTION

Bullock, Bennett, and Associates, LLC (BBA) was retained by the San Miguel Electric Cooperative, Inc. (SMECI) to complete an on-site inspection and prepare the Annual Coal Combustion Residuals (CCR) Fugitive Dust Control Report. The SMECI lignite-fired 440-megawatt (MW) power plant and associated mining facilities are located approximately six miles south of Christine, in Atascosa County in South Texas. Properties surrounding the facility are primarily comprised of open rural agricultural farm and ranch land mixed with oil and gas production facilities.

This Annual CCR Fugitive Dust Control Report has been prepared in general accordance with requirements set forth under the United States Environmental Protection Agency (USEPA) CCR Rule, 40 Code of Federal Regulations (CFR) §257.80. The federal CCR rules have been recently adopted by the Texas Commission on Environmental Quality (TCEQ) under 30 Texas Administrative Code (TAC) Chapter 352. The purpose of this inspection report is to summarize measures implemented by SMECI to control CCR fugitive dust, provide a record of citizen complaints addressing fugitive dust (if any) and to review past corrective measures associated with control of fugitive dust.

BBA performed the inspection on December 1, 2020. During the inspection SMECI personnel were available to provide assistance with BBA's questions.

This Annual CCR Fugitive Dust Control Report covers the October 2, 2019 to October 2, 2020 operating and reporting period as required under 40 CFR §257.80(c).

2.0 CCR FUGITIVE DUST CONTROL REQUIREMENTS

The CCR regulations set forth in 40 CFR §257.80(c) require the owners and operators of CCR units to provide an Annual CCR Fugitive Dust Control Report that includes, at a minimum, the following information for the reporting year:

- Descriptions of actions and control measures used to control fugitive dust;
- A record of all citizen complaints received during the calendar year; and,
- A summary of all corrective measures taken in response to citizen complaints.

In addition, owners and operators must comply with the following:

- Recordkeeping requirements as set forth in 40 CFR §257.105(g);
- Notification Requirements as forth in 40 CFR §106(g); and
- Publicly accessible internet site requirements as set forth in 40 CRF §257.107(g).

A summary of the CCR Fugitive Dust Control Plan requirements in 40 CFR §257.80 is as follows:

§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 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 or approval from the Participating State Director or approval from EPA where EPA is the permitting authority that the initial CCR fugitive dust control plan, or any subsequent amendment of it, meets the requirements of the 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)

The annual CCR Fugitive Dust Control plan must be documented pursuant to the reporting requirements of 40 CFR §257.80(d):

- 40 CFR §257.80(d) *The owner or operator of the CCR unit must comply with the recordkeeping requirements specified in* §257.106(g), and the internet requirements specified in §257.107(g).

3.0 POTENTIAL CCR FUGITIVE DUST SOURCES

SMECI operates various types of CCR producing units throughout the facility. Figure 1 depicts the potential CCR fugitive dust sources. The following potential CCR fugitive dust sources were inspected:

CCR Units:

- Ash Ponds A and B;
- South Equalization Basin;
- East Equalization Pond (historically referred to as the Equalization Pond); and,
- Ash Pile.

(Note: Ash Pond B was recently partitioned into two cells by constructing a lined separator dike, with one cell remaining as Ash Pond B and the other cell becoming the new South Equalization Basin – See Figure 1.)

Other CCR Management and Handling Areas:

- Fly Ash Silos
- Ash Dewatering Bins; and,
- Connecting roadways.

4.0 CCR FUGITIVE DUST CONTROL MEASURES

The on-site visual inspection of the CCR units was performed by a BBA licensed professional engineer on December 1, 2020. Table 1 summarizes the visual observations made during inspection of areas with potential for CCR fugitive emissions, type of CCR material in the area, management methods, and control measures to reduce CCR fugitive dust.

Table 1
CCR Fugitive Dust Management and Control Measures

CCR Areas	CRR Managed Material	Management Method	Dust Control Measures
Ash Ponds A and B	• Fly Ash • Bottom Ash • Economizer Ash Pyrites	• Wet CCR is piped from processes through enclosed conveyances to the Ash Ponds. Airborne CCR is unlikely due to the wet nature of the CCR. • Accumulated CCR that settles out of transport water is managed in the pond system.	• SMECI personnel perform daily inspections of the CCR Ash Ponds A and B for fugitive dust emissions and to ensure a liquid cover is maintained within the ponds. • SMECI dewatered Ash Ponds A and B in 2020 during installation of a 60 mil synthetic HDPE liner system. The ash was transported in moist condition to the Ash Pile in preparation for these work activities. Additionally, Ash Pond B was partitioned with a lined separator dike into Ash Pond B and the new South Equalization Basin in preparation to support future East Equalization Pond dewatering activities. At the time of the inspection, Ash Pond B and the new South Equalization Basin were empty of CCR materials. • Water trucks are used to spray Ash Ponds A and B on an as-needed basis to prevent windblown fugitive emissions. • There were no observations of fugitive dust during the annual inspection.
South Equalization Basin	• Flue Gas Desulfurization (FGD) Sludge • Fly Ash	**NOTE**: South Equalization Pond Not Yet Placed Into Service as of the Time of Inspection • Wet CCR is piped from processes through enclosed conveyances to the South Equalization Basin. Airborne CCR is unlikely due to the wet conditions of the CCR. • Accumulated CCR that settles out of FGD effluent will be managed in the pond system.	**NOTE**: South Equalization Pond Not Yet Placed Into Service as of the Time of Inspection • Measures similar to Ash Ponds A and B dust control will be implemented upon commissioning the South Equalization Basin into service.
East Equalization Pond	• Flue Gas Desulfurization (FGD) Sludge • Fly Ash	• Wet CCR is piped from processes through enclosed conveyances to the East Equalization Pond. Airborne CCR is unlikely due to the wet conditions of the CCR. • Accumulated CCR that settles out of FGD effluent is managed in the pond system.	• SMECI personnel performed daily inspections of the East Equalization Pond to confirm there was no windblown dust. • Most of the CCRs are submerged below the water surface elevation. Additional CCR material was placed within the north end of the East Equalization pond in 2018, and this material is a few feet higher than the surrounding water surface elevation. However, it is noted that the placed material is graded flat and forms a solid crust that is not

			subject to wind erosion and, therefore, has not been observed to emit windblown fugitive dust. • Dust prevention measures that would be used at the East Equalization Pond if-needed would include the use of a water truck on the perimeter berm road and the installation of a sprinkler system to wet the material within the pond. • There were no observations of fugitive dust during the annual inspection.
Ash Pile	• Flue Gas Desulfurization (FGD) Sludge • Fly Ash	• CCR is dampened and transferred through enclosed conveyors and stockpiled at the Ash Pile for future handling and off-site disposal.	• SMECI personnel perform daily visual inspections of the Ash Pile and conveyor system for fugitive dust emissions. • Ash conveyors are equipped with a wet suppression spray system that keeps the CCR moist while transported and stockpiled. • CCR is normally removed from the Ash Pile on a daily basis to manage stockpiled ash material and limit windblown dust. • A partially enclosed conveyor system is used to reduce windblown dust. • A front-end loader is used to keep the ash in a uniform stockpile. • Water trucks are used to spray the Ash Pile on an as-needed basis to prevent windblown fugitive emissions. • The repairs made to the south steel containment wall in October of 2018 appears to be operating as designed. • There were no observations of fugitive dust during the annual inspection.
Other Management Areas (Fly Ash Silos & Ash Dewatering Bins)	• Fly Ash • Bottom Ash • Economizer Ash • Pyrites • Flue Gas Desulfurization (FGD) Sludge	• Wet methods are used to control CCR while piped through closed conveyances to dewatering bins. • Moist CCR is transferred to haul trucks for off-site disposal. • Fly Ash is stored in closed silos and transferred in enclosed trucks.	• SMECI personnel performed daily visual inspections of the CCR units and CCR handling operations. • Water trucks were used to apply water as needed to connecting roadways within the plant area to prevent windblown fugitive dust. • Fly Ash is staged in enclosed silos and Ash Dewatering Bins. A portion of the Fly Ash is sold and transported off-site in enclosed trucks to reduce potential for fugitive dust emissions. Ash from the Ash Dewatering Bins is transported in a moist condition to the mine landfill. • There were no observations of fugitive dust during the annual inspection.

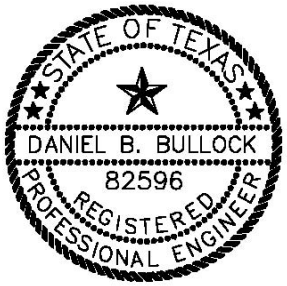
Connecting Roadways	• Fly Ash • Bottom Ash • Economizer Ash • Pyrites • Flue Gas Desulfurization (FGD) Sludge	• Wet CCR is piped through closed conveyances to dewatering bins and transferred moist into haul trucks for off-site disposal. • Fly Ash is stored and handled in closed silos and transferred to enclosed trucks for transport off-site.	• SMECI personnel performed daily inspections of the connecting roads and associated CCR Units for visible fugitive dust emissions. • Water trucks were used to apply water to connecting roads and surrounding areas on a as-needed basis to prevent fugitive emissions. • Low vehicle speeds are maintained on connecting roadways and throughout the plant to minimize windblown dust. • There were no observations of fugitive dust during the annual inspection.

5.0 CITIZEN COMPLAINTS and CORRECTIVE ACTIONS

SMECI did not receive citizen complaints with regard to CCR fugitive dust during the 2020 reporting period. Accordingly, no corrective actions with regard to citizen complaints were implemented.

I, Dan Bullock, certify under penalty of law that the information submitted in this inspection report was prepared by me or under my direct supervision and that I am a duly Registered Professional Engineer under the laws of the state of Texas. The information submitted, is to the best of my knowledge and belief, true, accurate and complete.

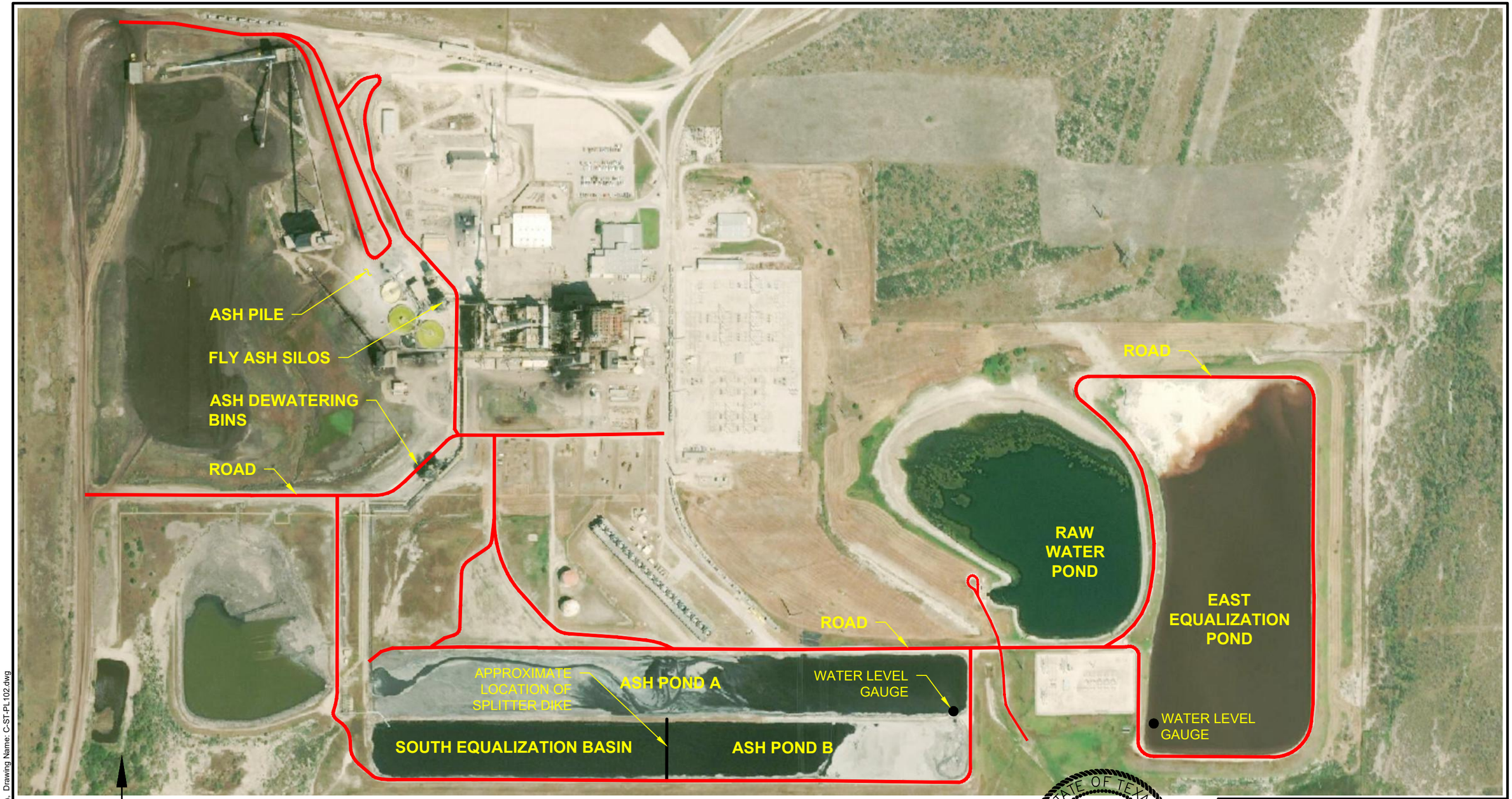
Dan Bullock, PE
Texas PE No. 82596, Expires: 06/30/2021
Date: 1/28/2021



1/28/2021

ATTACHMENT

- Figure 1



SOURCE: AERIAL BACKGROUND PROVIDED BY BING MAPS.

STATE OF TEXAS
DANIEL B. BULLOCK
82596
REGISTERED
PROFESSIONAL ENGINEER

1-27-2021

San Miguel Electric Cooperative Inc.
Atascosas County, Texas

Figure 1

SITE MAP - CCR FUGITIVE DUST CONTROL REPORT

PROJECT: 20379	BY: RCAD-RR	DATE: JAN 2021	CHECKED: DBB

Bullock, Bennett & Associates, LLC
Engineering and Geoscience
Texas Registrations: Engineering F-8542, Geoscience 50127

Plot Date: 01/28/21 - 8:45am, Plotted by: Admin
Drawing Path: K:\clients\ba\San Miguel\20379\, Drawing Name: C-ST-PL102.dwg