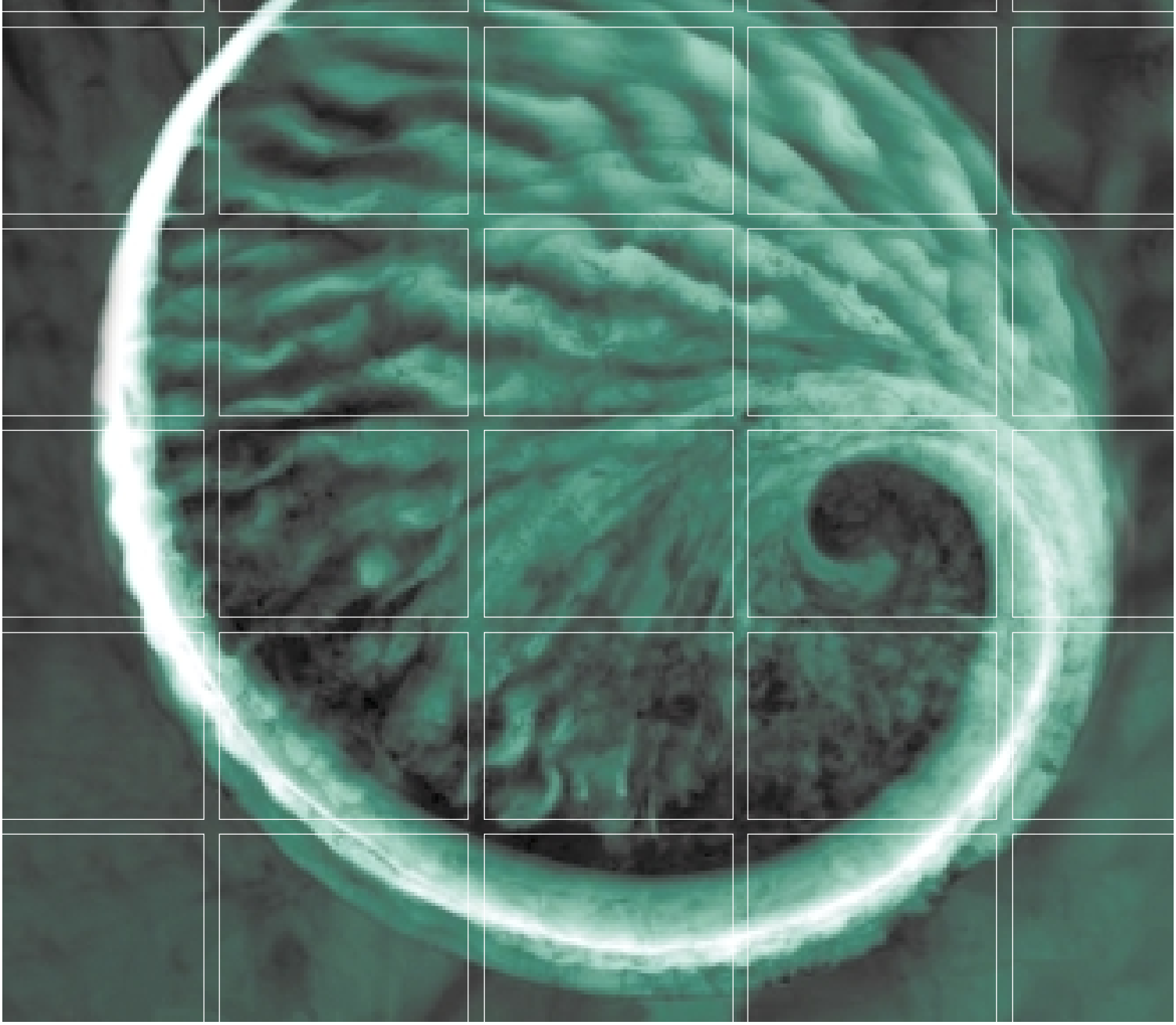


CCR Fugitive Dust Control Plan

CPS Energy
Calaveras Power Station

San Antonio, Texas

October 15, 2015

CPS Energy

CCR Fugitive Dust Control Plan
Calaveras Power Station

San Antonio, Texas

October 15, 2015

Project No. 0294192

Jeffery L. Bauguss
Partner-in-Charge, P.E.

Walter Zvernina
Project Manager

Environmental Resources Management
840 W. Sam Houston Parkway N.
Suite 600
Houston, Texas 77024
T: 281-600-1000
F: 281-600-1001

Texas Registered Engineering Firm F-2393
Texas Board of Professional Geoscientist Firm 50036

RECORD OF TECHNICAL PLAN AMENDMENTS, REVISIONS OR REVIEWS

Technical amendments/revisions to this Fugitive Dust Control Plan should be recorded here. A P.E. certification is required for technical changes and must be included on a new certification page – See Section 2.

Date	Amendment/ Revision or Update	Summary of Changes to Plan and/or Update Observations	Pages or Sections Changed
10/15/2015	Initial	Initial Plan Issued	Entire Plan

TABLE OF CONTENTS

1.0 INTRODUCTION

CPS Energy owns and operates the Calaveras Power Station (Facility) in San Antonio, Texas. Within this Facility, two plants are coal fired plants (JT Deely Power Plant and JK Spruce Power Plant) that generate coal combustion residuals (CCR) that are subject to regulation under Title 40, Code of Federal Regulations, Part 257 (40 CFR Part 257) (Rule). Additionally, Boral Material Technologies (BMT) performs CCR management tasks at the Facility in addition to operating and maintaining a CCR pile at the Facility.

This document serves as the CCR Fugitive Dust Control Plan (Plan) for CPS Energy. The Plan is intended to satisfy the air criteria requirements of the CCR regulations promulgated in 40 CFR Part 257.80.

This Plan requires CPS Energy to adopt measures that will effectively minimize CCR from becoming airborne at the Facility, including CCR fugitive dust originating from CCR units, CCR piles, roads, and other CCR management activities. A Facility site map showing the pertinent CCR units, CCR piles, roads, and other CCR management activities is provided in Appendix A.

1.1 PLAN REQUIREMENTS AND DEFINITIONS

The CCR regulations promulgated in 40 CFR Part 257 require the preparation, certification and implementation of a Fugitive Dust Control Plan for all regulated CCR units and associated areas (e.g., haul roads and associated CCR management activities). The requirement to prepare and implement this Plan is applicable to owners and operators of CCR units covered under the Rule, including:

- New and existing landfills;
- New and existing surface impoundments;
- CCR units located off-site of the electric utilities' or independent power producers' facilities that receive CCR for disposal; and
- Certain inactive CCR surface impoundments if the CCR unit still contains CCR and liquids.

The Plan contains specific terms that are defined as follows in 40 CFR 257.2, Definitions and associated Federal Registers as noted:

- **Coal combustion residuals (CCR)** – means fly ash, bottom ash, boiler slag and flue gas desulfurization materials generated from burning coal for the purpose of generating electricity by electric utilities and independent power producers.
- **CCR fugitive dust** – means solid airborne particulate matter that contains or is derived from CCR, emitted from any source other than a stack or chimney.

- **CCR landfill** – means an area of land or an excavation that receives CCR and which is not a surface impoundment, an underground injection well, a salt dome formation, a salt bed formation, an underground or surface coal mine, or a cave. For purposes of this subpart, a CCR landfill also includes sand and gravel pits and quarries that receive CCR, CCR piles, and any practice that does not meet the definition of a beneficial use of CCR.
- **CCR pile or pile** – means any non-containerized accumulation of solid, non-flowing CCR that is placed on the land. Note: As stated in the CCR Rule Preamble, piles placed on the land and used as "temporary storage" to manage CCR on-site prior to disposal in a landfill or subsequent beneficial use are considered as a CCR landfill and subject to the requirements of the Rule (unless containerized or contained by some other method of preventing environmental exposure).
- **CCR surface impoundment** – means a natural topographic depression, manmade excavation, or diked area, which is designed to hold an accumulation of CCR and liquids, and the unit treats, stores, or disposes of CCR.
- **Facility –** means all contiguous land, and structures, other appurtenances, and improvements on the land, used for treating, storing, disposing, or otherwise conducting solid waste management of CCR. A facility may consist of several treatment, storage, or disposal operational units (e.g., one or more landfills, surface impoundments, or combinations of them).
- **Qualified professional engineer** – means an individual who is licensed by a state as a Professional Engineer to practice one or more disciplines of engineering and who is qualified by education, technical knowledge and experience to make the specific technical certifications required under this subpart. Professional engineers making these certifications must be currently licensed in the state where the CCR unit(s) is located.

1.2 MANAGEMENT OF THE PLAN

CPS Energy will periodically assess the effectiveness of this Plan through the following procedures and amend the Plan as appropriate:

- CPS Energy and BMT will log observations of fugitive dust emissions using the Visual Observation Record in Appendix B.
- CPS Energy will review the Visual Observation Records of the affected CCR units. These Visual Observation Records may indicate cause for additional or modified handling processes and/or dust control measures.
- BMT will be responsible for periodically assessing the effectiveness of the Plan for their operations and recommend Plan amendments to CPS Energy as needed. CPS Energy will also be responsible for periodic assessment of the effective of the BMT operations to comply with this Plan.

A completed copy of the Plan, certified by a qualified professional engineer, will be generated and placed in the CPS Energy Operating Record by October 19, 2015. CPS Energy will amend this Plan in accordance with the requirements of

§257.80(b)(6) whenever a change that will substantially affect this written Plan, such as construction and operation of a new CCR unit. CPS Energy will amend this Plan whenever necessary and place a copy of the current updated Plan in the Operating Record in accordance with the Recordkeeping requirements of §257.105(g)(1).

An amended Plan will be certified by a qualified professional engineer as in accordance with the requirements of §257.80(b)(7).

1.3 REPORTING REQUIREMENTS

CPS Energy will prepare an annual CCR fugitive dust control report that includes the following information:

- Description of the actions taken by CPS Energy during the reporting year to control fugitive dust;
- A record of all citizen complaints received during the calendar year; and
- A summary of any corrective measures taken in response to received citizen complaints.

CPS Energy will complete the initial annual report no later than 14 months after placing the initial Fugitive Dust Control Plan in the Operating Records. The initial Fugitive Dust Control Plan will be placed in the Operating Record by October 19, 2015. The initial annual report is due on December 19, 2016.

CPS Energy will record citizen complaints of fugitive dust emissions using the log in Appendix C.

1.4 NOTIFICATION REQUIREMENTS

CPS Energy will notify the State Director as required under §257.106(g)(1) and (2) when the following documents are made available in the Operating Record:

- Initial and subsequent amendments to this Plan; and
- Annual CCR fugitive dust control report.

The chief administrative officer meeting the definition of the Texas State Director is:

Richard A. Hyde, P.E.
Executive Director, MC 109
TCEQ
P.O. Box 13087
Austin, TX 78711-3087

1.5 INTERNET POSTING REQUIREMENTS

CPS Energy will post the following documents as required under §257.107(g)(1) and (2) within 30 days of placing in the Operating Record:

- Initial and subsequent amendments to this Plan; and

- Annual CCR fugitive dust control report.

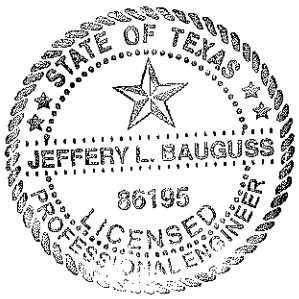
1.6 COMPLIANCE WITH OTHER REGULATORY REQUIREMENTS

This Plan is designed to comply with the federal CCR fugitive dust control requirements found in 40 CFR Part 257.80 and is not intended to incorporate procedures to fully comply with the requirements of any other regulation. The Facility does not intend to duplicate or deviate from the requirements for fugitive dust control required under other regulations or permits such as Title V and NSR air permits and Texas air quality regulations under 30 TAC Part 1, Chapter 111, Control of Air Pollution from Visible Emissions and Particulate Matter.

2.0 *PROFESSIONAL ENGINEER'S CERTIFICATION*

40 CFR Part 257.80(b)(7) of the CCR regulations require that the Fugitive Dust Control Plan meets the requirements of the Rule. This certification is provided below:

> *"I hereby certify that I have reviewed the CCR unit management practices for the CPS Energy Calaveras Power Station in San Antonio, Texas, and being familiar with the provisions of 40 CFR Part 257.80, attest that this Fugitive Dust Control Plan has been prepared in accordance with good engineering practices."*

Seal: 

Jeffery L. Bauguss, P.E.
Printed Name of Registered Professional Engineer

Signature of Registered Professional Engineer

Date: 10/15/2015 | 86195 Registration No. | Texas State

3.0 *POTENTIAL SOURCES OF DUST AND CONTROL MEASURES*

CPS Energy and their contractor Boral Material Technologies (BMT) handle CCR in various units. A site map of the Facility is included in Appendix A. The site map depicts the following areas where CCR is managed:

- 5-Year/Fly Ash Landfill
- Evaporation Pond
- Mobile Ash Conditioning System
- Radial Stacker
- North and South Bottom Ash Ponds
- Sludge Recycle Holding (SRH) Ponds
- Sludge Handling Conveyors
- Concrete Bottom Ash Bins
- Emergency Stackout
- Paved Roads maintained by CPS Energy
- Unpaved Roads maintained by CPS Energy and BMT

The CCR units, types of CCR materials managed, management methods, and dust control measures are presented in Table 3-1. 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 drip 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.

TABLE 3-1: CCR Fugitive Dust Management and Control Measures

CCR Units	CCR Materials Managed	Management Methods	Dust Control Measures
5-Year/Fly Ash Landfill	Fly Ash Economizer Ash MACS Ash FGD Gypsum Bottom Ash	• Fly Ash is transported on-site in covered or enclosed dump trucks, enclosed pneumatic trailers or vacuum trucks. Fly Ash is shipped off-site in enclosed pneumatic trailers or covered dump trucks. • Economizer Ash may be unloaded into the MACS or unloaded into the Landfill. • Fly Ash used for the production of MACS Ash will travel from the silos on paved roads and then travel along an unpaved road in covered or enclosed dump trucks or enclosed pneumatic trailers to the Landfill. Once the truck arrives at the Landfill, the truck will unload Fly Ash into the MACS. • Once MACS Ash has been produced, the MACS Ash will remain stored in the Landfill for future sales. • FGD Gypsum is mechanically transported to the Landfill by the covered Sludge Handling Conveyors and is discharged from a Radial Stacker located in the southwest corner of the Landfill. • Moist Bottom Ash is transported to the Landfill along paved and unpaved roads in dump trucks. Drier Bottom Ash is transported to the Landfill along paved and unpaved roads in covered dump trucks. • FGD Gypsum and Bottom Ash are stored in the Landfill for future sales. • FGD Gypsum and Bottom Ash that are shipped off-site will travel on paved and unpaved roads in covered dump trucks.	• Fly Ash is transported in covered or enclosed trucks, in enclosed pneumatic trailers or vacuum trucks. • Significant spills along roads will be collected and deposited into the Landfill. • Paved roads are swept monthly by a motorized street sweeper. Prior to mechanical sweeping, if necessary, any significant accumulations should be collected. To minimize the spread of dust, sweeping activities will not be conducted during high wind events. Collected material from the sweeping activities will be deposited into the Landfill. • CPS Energy and BMT will conduct periodic visual observations for emission of windblown dust in the Landfill and on the roads and will use water trucks to apply water spray to areas where drying has caused apparent windblown dust. • The dust collector for the MACS will be in operation during unloading. If the dust collector is not operable, BMT will make necessary repairs prior to unloading. • A stabilized exit will be used to control the release of loose CCR materials on truck wheels as the trucks leave the Landfill. A description of the construction and maintenance of the stabilized exit is provided in Appendix D.

CCR Units	CCR Materials Managed	Management Methods	Dust Control Measures
North and South Bottom Ash Ponds	Bottom Ash	• Bottom Ash is sluiced and conveyed to the North and South Bottom Ash Ponds through piping. • Once sufficient Bottom Ash is collected in a Bottom Ash Pond, the Pond will be dewatered and BMT will use a front end loader to remove the Bottom Ash. • Bottom Ash that is shipped off-site will travel along paved roads and unpaved roads in covered dump trucks. • Moist Bottom Ash is transported to the Landfill along paved and unpaved roads in dump trucks. Drier Bottom Ash is transported to the Landfill along paved and unpaved roads in covered dump trucks.	• Sluiced Bottom Ash is conveyed through piping. • Dry Bottom Ash is transported in covered dump trucks. • Paved roads are swept monthly by a motorized street sweeper. Prior to mechanical sweeping, if necessary, any significant accumulations should be collected. To minimize the spread of dust, sweeping activities will not be conducted during high wind events. Collected material from the sweeping activities will be deposited into the Landfill. • CPS Energy and BMT will conduct periodic visual observations for emission of windblown dust on the roads and will use water trucks to apply water spray to areas where drying has caused apparent windblown dust.
Sludge Handling Conveyors and Radial Stacker	FGD Gypsum	• FGD Gypsum is mechanically transported to the Landfill by the covered Sludge Handling Conveyors and is discharged from a Radial Stacker located in the southwest corner of the Landfill.	• CPS Energy will conduct periodic visual observations of the Conveyors for releases of FGD Gypsum that results in visible dust emissions. • Any significant releases of FGD Gypsum along the Conveyors will be collected and deposited in the Landfill. • CPS Energy will adjust CCR drop height or shroud as appropriate to minimize windblown dust from Conveyors and Radial Stacker.
JKS1 and JKS2 Concrete Bottom Ash Bins	Bottom Ash	• Bottom Ash is removed from the boilers by drag chain conveyor and is discharged into a concrete collection bins for temporary storage. • BMT will use a front end loader to remove Bottom Ash from inside the concrete collection bins. • Moist Bottom Ash is transported along paved and unpaved roads in dump trucks and will be stored in the Landfill for future sales.	• CPS Energy and BMT will conduct periodic visual observations for emission of windblown dust on the roads and will use water trucks to apply water spray to areas where drying has caused apparent windblown dust.

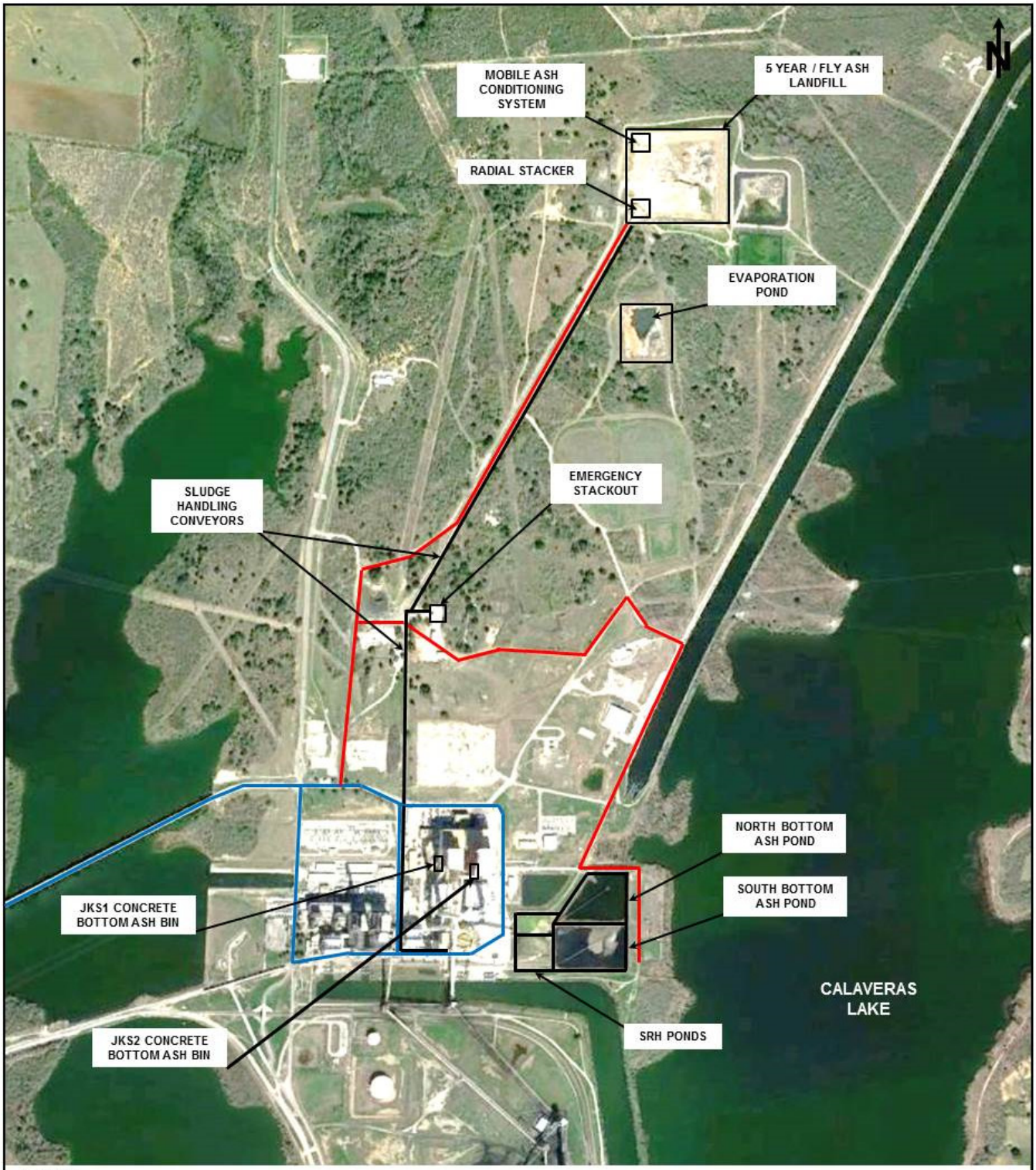
CCR Units	CCR Materials Managed	Management Methods	Dust Control Measures
Emergency Stackout	FGD Gypsum	• If Radial Stacker or Sludge Handling Conveyors become inoperable, FGD Gypsum will be discharged at the Emergency Stackout. • BMT or CPS Energy will use a front end loader and dump trucks to move the moist FGD Gypsum from the Emergency Stackout to the Landfill along unpaved roads.	• CPS Energy and BMT will conduct periodic visual inspections for emission of windblown dust at the Stackout and on the roads and will use water trucks to apply water spray to areas where drying has caused apparent windblown dust.

Facility Site Map

Appendix A

October 15, 2015
Project No.0294192

Environmental Resources Management
CityCentre Four
840 W. Sam Houston Parkway N. Suite 600
Houston, Texas 77024
(512) 281-1000



Environmental Resources Management		FIGURE 1 Facility Site Map CPS Energy San Antonio, Texas	ERM
DATE: October 2015	PROJ. NO.: 0294192/A7780		

Visual Observation Record

Appendix B

October 15, 2015
Project No.0294192

Environmental Resources Management
CityCentre Four
840 W. Sam Houston Parkway N. Suite 600
Houston, Texas 77024
(512) 281-1000

Visual Observation Record – Fugitive Dust Emissions

CPS Energy

Calaveras Power Station

Date and Time Emission Observed	
Person Observing Emission	
Description of Emission	
Area of Site Emission was Observed	
Corrective Actions Description and Timetable (if applicable)	
Follow-Up Actions (if applicable)	

Citizen Complaint Log

Appendix C

October 15, 2015
Project No.0294192

Environmental Resources Management
CityCentre Four
840 W. Sam Houston Parkway N. Suite 600
Houston, Texas 77024
(512) 281-1000

Citizen Complaint Log – Fugitive Dust Emissions

CPS Energy

Calaveras Power Station

Date and Time Complaint Received	
Person Receiving Complaint	
Method Complaint Registered or Received	
Description of Complaint	
Area of Site Originating Complaint (if applicable)	
Corrective Actions Description and Timetable (if applicable)	
Follow-Up Actions (if applicable)	

Description of Stabilized Exit

Appendix D

October 15, 2015
Project No.0294192

Environmental Resources Management
CityCentre Four
840 W. Sam Houston Parkway N. Suite 600
Houston, Texas 77024
(512) 281-1000

STABILIZED EXIT

This section describes the construction and maintenance of a stabilized exit to control the release of loose coal combustion residual (CCR) materials on truck wheels as the trucks leave the 5-year/fly ash landfill area. Truck traffic must exit the landfill area only through the stabilized exit.

Construction Materials

Coarse aggregates shall consist of crushed stone, gravel, or a combination of both. Coarse aggregates should consist of open graded rock 3 to 8 inch nominal diameter in size. Coarse aggregates shall be composed of clean, hard, durable materials free from adherent coatings, salt, alkali, dirt, clay, loam, shale, soft or flaky materials, or organic matter.

General Construction

The stabilized exit will be used in conjunction with the existing cattle guard and will be constructed on a section of the unpaved road located between the top of the landfill exit ramp and the cattle guard.

The stabilized exit width should be at least 14 feet for one-way traffic and shall be sufficient for all egress. The length of the stabilized exit should be between 20 to 50 feet. The thickness of the coarse aggregates in the stabilized exit shall be between 6 and 8 inches.

Construction Methods

1. Excavate the designated exit area to a depth of 3 to 4 inches into the existing grade.
2. If the subgrade material is existing roadbase or other hard material, place the coarse aggregate into the excavation until the thickness is not greater than 8 inches. If the subgrade material is existing soil, then a geotextile fabric should be first placed into the excavation to reduce the potential for the aggregate to sink too much into the existing soil subgrade. The coarse aggregate will then be placed into the fabric lined excavation until the thickness is not greater than 8 inches.
3. The area around the stabilized exit shall be graded to provide sufficient drainage away from the stabilized exit.

Maintenance Methods

The stabilized exit area shall be inspected monthly. If necessary, provide periodic top dressing with additional coarse aggregates to maintain the required depth.

Once the top 3 to 4 inches of the coarse aggregates becomes filled with CCR materials (based on visual observation), then the 3 to 4 inch layer should be removed and replaced with another layer of coarse aggregates to the required depth. The CCR impacted aggregates removed during this maintenance task should be placed within the landfill.

Unless otherwise directed, maintain the stabilized exit until the landfill is no longer accepting CCR.