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# ANNUAL CCR FUGITIVE DUST CONTROL REPORT

# **Big Cajun II Power Plant**

# New Roads, Pointe Coupee Parish, Louisiana

Prepared for

#### Louisiana Generating, LLC

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Prepared by

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# 1. INTRODUCTION

This Annual CCR Fugitive Dust Control Report (annual report) has been prepared for the Louisiana Generating, LLC (LaGen) Big Cajun II Power Plant (facility) pursuant to the air criteria requirements of Section (§) 257.80 of the Federal Coal Combustion Residual (CCR) Rule (the Rule) contained in Title 40 Code of Federal Regulations (CFR) Part 257.

Under 40 CFR §257.80, the facility 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. These measures are identified and described in the facility's CCR Fugitive Dust Control Plan (Plan) (CB&I, 2015). This Plan has been previously placed into the facility operating record, and the facility conducts site CCR management operations in accordance with the Plan.

In accordance with the Rule, this annual report:

- describes the actions taken by the operator to control CCR fugitive dust;
- provides a record of all citizen complaints (if any); and
- summarizes corrective measures taken (if any).

Geosyntec Consultants (Geosyntec) understands that the 2016 annual report (CB&I, 2016) was placed in the facility operating record on 19 December 2016. The deadline for completing a subsequent report is one year after the date of completing the previous report. A report is considered complete when it has been placed in the facility operating record. Therefore, this 2017 annual report has been developed to address the period from 19 December 2016 to its issuance date of 19 December 2017, and is intended to be placed in the facility Operating Record upon issuance.

To prepare this 2017 annual report, Geosyntec reviewed the facility's CCR Fugitive Dust Control Plan, the 2016 Annual CCR Fugitive Dust Control Report, and available 2017 fugitive dust inspection logs. Geosyntec also visited the facility on 25 October 2017 to review and observe site features and CCR management procedures, inquire about any citizen complaints received or corrective actions made during the period of record, as well as to discuss operations with the facility's environmental coordinator who is responsible for day-to-day CCR fugitive dust control inspections and overall Plan implementation. Prior to issuance of this 2017 annual report, this document was reviewed by the facility's environmental coordinator to confirm the accuracy of the information presented herein.



# 2. FUGITIVE DUST CONTROL MEASURES

# 2.1 Facility Background

The LaGen Big Cajun II Power Plant is a coal and natural gas-fired, steam turbine electric power generation facility located on 1,939 acres northeast of New Roads, Louisiana. Big Cajun II is currently owned and operated by LaGen, a subsidiary of NRG Energy, Inc., and has been in operation for over 30 years. A site map showing relevant facility areas associated with CCR management is presented on Figure 1, and a description of the plant processes related to CCR generation and management is provided below.

Coal is delivered to the facility via barge on the Mississippi River, to a dock located just east of the plant. The coal is then unloaded onto a conveyor belt which transports the coal to a storage area north of the boiler units. The facility has three boiler units. Unit 1 and Unit 3 use coal as the primary source of fuel, and thus generate CCR material (fly ash and bottom ash). Unit 2 has been converted to natural gas and no longer generates CCR material.

After power generation, the fly ash generated by Unit 1 and Unit 3 is pneumatically transported to storage silos, after which it is either shipped off-site (for beneficial reuse or disposal) or is moved via a closed system into a closed truck which transports the fly ash to the on-site Fly Ash Basin for storage/disposal. As demand dictates, the fly ash in the basin may be removed and sold. Bottom ash generated by the facility is collected in hoppers at the base of the boiler units. The bottom ash in the Unit 1 hopper is transported hydraulically (sluiced) via pipe into the on-site Bottom Ash Basin, and the bottom ash in the Unit 3 hopper is hauled in a hydrated state via dump truck to the Bottom Ash Basin for storage/disposal.

# 2.2 Fugitive Dust Control Measures

Control measures are required to 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. These measures are detailed in the facility's CCR Fugitive Dust Control Plan (CB&I, 2015). Consistent with this Plan, the following CCR fugitive dust control measures were implemented by the facility at the potential CCR fugitive dust sources during the period addressed in this annual report.

• <u>Fly Ash Handling</u>. The storage silos are equipped with a baghouse to capture CCR fugitive dust during transfer of fly ash into the Unit 1 and Unit 3 silos. Most of the fly ash is transported using closed pneumatic tank trucks. To transfer fly ash, a delivery chute is lowered from the base of the silo into the fill opening of the tanker truck; fugitive dust generated during the filling process is captured using a fly ash unloading blower. When open top trucks are used, (i) the truck is



not filled to full capacity (i.e., some freeboard is maintained in the truck) and (ii) the truck is covered with tarp during transport to the Fly Ash Basin.

- <u>Bottom Ash Handling</u>. Bottom ash from Unit 1 is transported hydraulically through a pipe directly to the Bottom Ash Basin; this process produces virtually no fugitive dust due to (i) the high water content of the bottom ash and (ii) the bottom ash traveling through a pipe. Bottom ash from Unit 3 is collected in hoppers after which the damp bottom ash is hauled via dump trucks to the Bottom Ash Basin. The dump trucks are covered during transport to minimize fugitive dust emissions.
- <u>Transport Roads</u>. Site roads used to transport CCR materials are evaluated by facility personnel and watered using a water truck as-needed based on the observed surface dryness. Fugitive dust emissions are also controlled by posting and maintaining a maximum vehicle speed limit of 15 miles per hour on site roads. Roads and parking lots are also periodically swept.
- <u>Surface Impoundments</u>. Fugitive dust from the Fly Ash Basin and Bottom Ash Basin is minimized by spreading the material as soon as practical after being delivered. Additionally, access roads in and around the CCR surface impoundments are evaluated and addressed with watering for dust control as described above.



# 3. CITIZEN COMPLAINTS AND CORRECTIVE MEASURES

## 3.1 Citizen Complaints

Per the facility's CCR Fugitive Dust Control Plan (CB&I, 2015), citizen complaints involving fugitive dust events at the facility are to be logged in NRG's Environmental Management Information System (EMIS) database within 24 hours of receiving a complaint. The EMIS will automatically forward the complaint to the facility manager, NRG's regional environmental manager, and NRG's Corporate Environmental Department.

No citizen complaints were received during the period addressed by this annual report.

## **3.2** Corrective Measures

Per the facility's CCR Fugitive Dust Control Plan (CB&I, 2015), if a citizen complaint is received, NRG will conduct a thorough investigation; then, the results of the investigation will be recorded and entered into the EMIS database and communicated to the appropriate parties. If an investigation confirms a fugitive dust emission event, NRG will conduct a root cause analysis to address the source of the excess fugitive dust and will develop a plan to mitigate future occurrences and remediate impacts, as necessary.

No corrective measures were necessary during the period addressed by this annual report.



## 4. ASSESSMENT OF PLAN EFFECTIVENESS

Per the procedures set forth in the facility's CCR Fugitive Dust Control Plan (CB&I, 2015) and consistent with 40 CFR §257.80, the Plan will be periodically reviewed by the facility's environmental coordinator and assessed to determine its effectiveness in providing the appropriate procedures and methods for minimizing CCR from becoming airborne at the facility. The review will serve to either confirm the continuing effectiveness of the Plan or will identify sections which necessitate revision/upgrade to reflect any relevant changes in facility operations, CCR unit aspects, or necessary improvements in CCR fugitive dust control protocols. Furthermore, the Plan must be amended whenever there is a change in conditions that would substantially affect the Plan, such as the construction and operation of a new CCR unit.

During the period addressed by this annual report, there have been no significant changes in facility operations, no new CCR units added, no new CCR management operations or processes, and no modifications to existing CCR management operations or processes that would necessitate a change in the Plan. Furthermore, there have been no citizen complaints received or corrective measures taken regarding CCR fugitive dust control. No actions outside of the normal CCR fugitive dust control measures have been required. As part of the facility's review process before issuance of this document, the facility's environmental coordinator has determined that no additional or modified CCR fugitive dust control measures are warranted at this time.

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# 5. RECORDKEEPING, NOTIFICATION, INTERNET REQUIREMENTS

#### 5.1 **Recordkeeping Requirements**

In accordance with 40 CFR §257.105(g), the CCR Fugitive Dust Control Plan, including any subsequent amendment of the Plan), annual CCR fugitive dust control report, and related information will be kept in the facility operating record. These items will be maintained in the operating record for at least five years following the date of each occurrence, measurement, maintenance, corrective action, report, record, or study – except that only the most recent Plan must be maintained in the operating record.

The facility is regularly monitored for CCR fugitive dust conditions. Should CCR fugitive dust conditions occur, the facility will log the incident in accordance with the Plan, including detailing the corrective measures taken to reduce the fugitive dust. The incident log (if any) will also be included in the next annual report. As previously stated, no CCR fugitive dust conditions were observed by facility personnel during the period addressed by this annual report.

#### 5.2 Notification Requirements

In accordance with 40 CFR §257.106(g), the State Director of the Louisiana Department of Environmental Quality (LDEQ) will be notified that this Annual CCR Fugitive Dust Control Report has been placed in the operating record and on the publicly accessible internet site.

## **5.3** Internet Requirements

In accordance with 40 CFR §257.107(g), the most recent Annual CCR Fugitive Dust Control Report will be made available on the facility's publicly accessible internet site within 30 days of it being placed in the operating record.



#### 6. REFERENCES

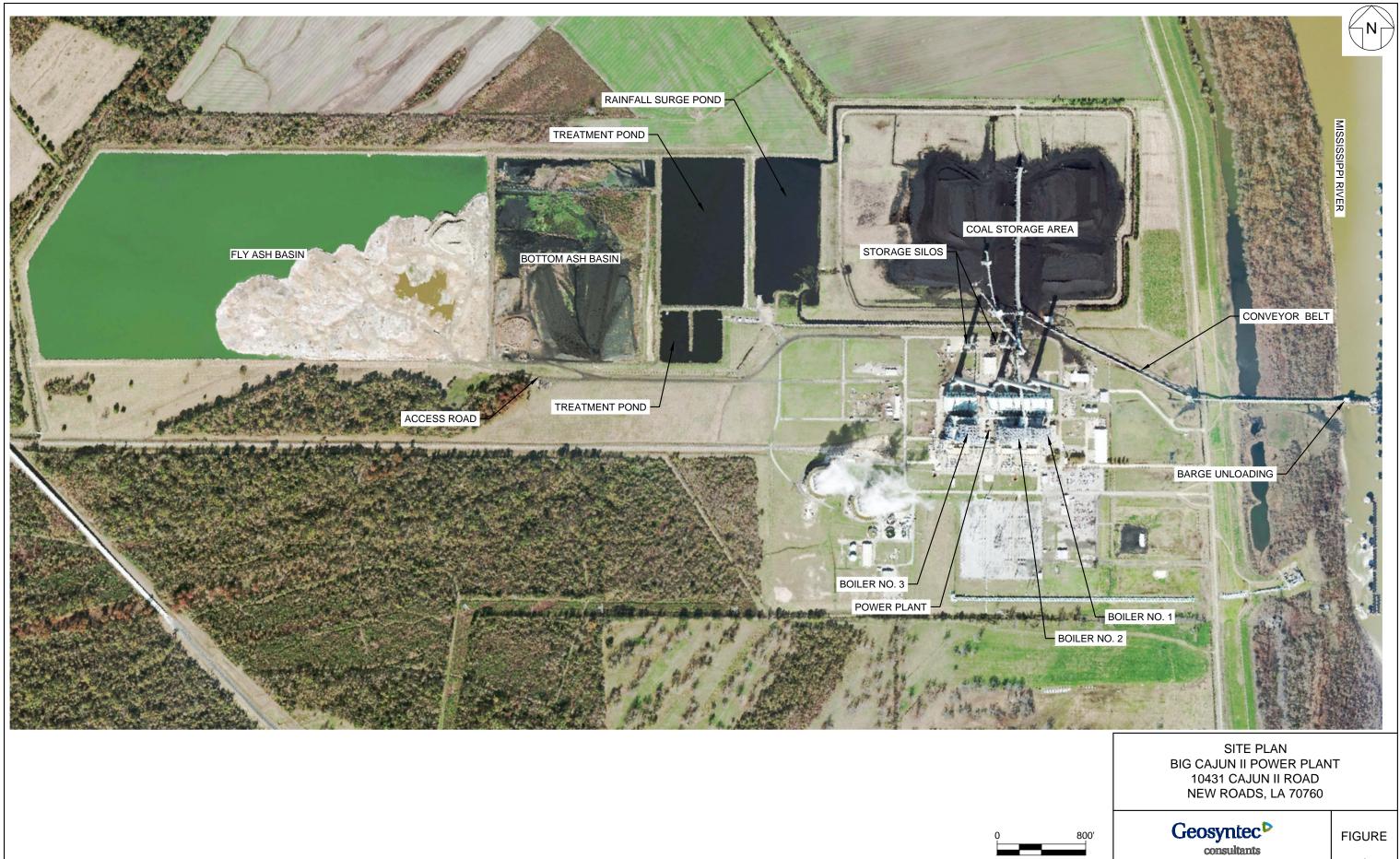
CB&I (CB&I Environmental & Infrastructure, Inc). CCR Compliance – Fugitive Dust Control Plan. Louisiana Generating, LLC, Big Cajun II. October 2015.

CB&I. CCR Compliance – Annual Fugitive Dust Control Report. Louisiana Generating, LLC, Big Cajun II. December 2016.

Annual CCR Fugitive Dust Control Report LaGen Big Cajun II Power Plant



# FIGURE





DECEMBER 2017 BATON ROUGE, LA

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