WHITE BLUFF STEAM ELECTRIC STATION

CCR FUGITIVE DUST CONTROL PLAN

Revision 0

October 13, 2015

PROFESSIONAL ENGINEER'S REVIEW – [40 CFR 257.80(b) (7)]

The undersigned licensed Professional Engineer is familiar with the requirements described in Chapter 40 of the Code of Federal Regulations Part 257.80(b) and is familiar with the Entergy facility.

I hereby certify that I have examined White Bluff Steam Electric Station and attest that this Fugitive Dust Control Plan meets the requirements of 40 CFR Part 257.80.

Engineer: David Triplett

Signature: _____

Registration No: 11654

State: Arkansas

Date: October 13, 2015

1.0 Introduction

This document represents the CCR Fugitive Dust Control Plan (Plan) for the Entergy White Bluff Steam Electric Station (White Bluff) as required by §257.80(b) of the Disposal of Coal Combustion Residuals from Electric Utilities final rule (Rule) published in the Federal Register on April 17, 2015.

Fly ash is the fine particle size ash that is removed from the exhaust stream by the boilers' Electrostatic Precipitators and is pneumatically transferred to two storage silos which are abated by fabric filter dust collectors. Bottom ash is a coarse material similar in particle size to a sand gravel mix that is collected in the bottom of the boilers, is quenched and hydraulically conveyed to four dewatering bins located adjacent to the fly ash silos. Economizer ash, a larger particle sized fly ash, is collected in hoppers located under each boilers' economizer sections and transferred by enclosed conveyor to nearby storage silos.

This fugitive dust control plan covers identified sources associated with the loading, unloading, transfer and disposal of coal combustion residuals. This plan identifies three categories of CCRs which are generated from different areas during the combustion process: fly ash, bottom ash, and economizer ash. Emissions associated with fugitive dust are abated by industry accepted best management practices. Sources of fugitive dust include the following: vehicular travel, material handling, storage piles and exposed landfill surfaces. The storage piles and exposed landfill surfaces are located within the Arkansas Department of Environmental Quality Solid Waste Management Division (ADEQ-SWMD) permitted (0199-S3N-R3) landfill boundary and are operated in compliance with Arkansas Pollution Control and Ecology Commission Regulation 22 requirements.

2.0 CCR Fugitive Dust Control Measures

2.1 Vehicular Travel

Fly ash is loaded into trucks directly from the fly ash silos and then either shipped off-site for sale or is transported to the on-site landfill to be disposed or later reclaimed for sale. Fly ash that is transported to the on-site landfill is transferred via closed tanker truck. Fly ash, bottom ash or their mixtures are sold by the onsite ash marketing contractor. Fly ash that is sold directly from silos is loaded and hauled offsite in enclosed tanker trucks operated by the onsite ash marketing contractor or their customers. Fly ash is also sold and loaded in open top trucks owned by customers. To abate fugitive emissions from becoming airborne during transport in the open-top trucks, the vehicles will travel under a spray bar to hydrate the layer of the exposed fly ash to form a thin encapsulated layer or, if so equipped on privately-owned trucks, the load will be tarped prior to leaving the loading area. Bottom ash, in a moist condition, is either shipped off-site for sale directly from the dewatering silos or sent to the on-site landfill to be either disposed or later reclaimed for sale and shipped off-site via open top dump trucks that are covered or have traveled under the spray bar. Economizer ash is transferred from each unit's economizer ash bin directly to the landfill for disposal via covered open top dump trucks.

A paved road is used to transport fly ash and bottom ash from the silos and dewatering bins to the landfill. The road from the economizer bins to the landfill is also paved. The paved roads will be wetted using a watering truck on an as-needed basis to prevent visible emissions from causing a nuisance beyond the property boundary due to vehicular traffic. Depending upon the current weather conditions and on an as need basis, a dust control agent may be added to increase the effectiveness of this dust control measure. Any such agent will comply with applicable VOC and HAP content limits as specified in the Plant's Title V Operating Air Permit. Fugitive dust generated from vehicular traffic from the landfill access road will be minimized by enforcing a posted speed limit of 25 mph or less. Vehicular traffic not associated with ash management activities will be minimized.

Fugitive emissions from vehicular traffic in the landfill occur from the tanker trucks delivering fly ash, dump trucks delivering bottom ash and economizer ash, trackhoe loaders, and bulldozers that move material. Fugitive dust in the landfill area will be controlled with a watering truck on an as-needed basis to prevent visible emissions from causing a nuisance beyond the property boundary due to vehicular traffic from the trucks and other CCR moving equipment. In addition, fugitive dust generated from vehicular traffic within the landfill boundary will be minimized by enforcing a speed limit of 5 mph. Vehicular traffic and equipment movement not associated with ash management activities will be minimized.

2.2 Material Handling

Fugitive emissions from material handling occur during truck loading, during unloading at the landfill for disposal or staging, and material reclaimed or transferred by trackhoe, front end loader or bulldozer.

For loading of fly ash, tanker trucks park directly under the enclosed fly ash silos where a telescoping port connects with the tanker truck's top hatch to create a dust-free seal. When loading is complete, the telescoping port retracts and negative pressure limits residual dust collected in the accordion shaped tube from releasing. The bottom ash loaded from the dewatering bins remains inherently moist and is typically not prone to fugitive dust generation. Bottom ash is loaded into dump trucks prior to transfer for sale or to the landfill for disposal. Economizer ash is loaded to covered dump trucks prior to transfer to the landfill.

Fly ash is deposited in the landfill by belly-dumping from the bottom of the tanker trucks in order to minimize the material drop distance. The bottom hatches are opened as the tanker slowly progresses forward while depositing a piled line of fly ash. Economizer ash is dumped via covered dump trucks in the landfill. The deposited fly ash and/or economizer ash is then transferred and comingled with the more moist CCR material in the landfill to minimize the potential for fugitive wind-blown emissions. Bottom ash is dumped via dump truck in the landfill. Due to the retained moisture, fugitive emissions from both the drop and wind-blown

activity associated with bottom ash are minimal. Reclaimed CCR material, used as a synthetic aggregate, retains some moisture, but will be hydrated if needed. Reclaimed CCR material is loaded to trucks via trackhoe or front end loader.

All material handling activities will be conducted in a manner to minimize fugitive dust formation and to prevent visible emissions from causing a nuisance beyond the property boundary. Should nuisance visible emissions be observed beyond the property boundary additional mitigation measures will be deployed or the activity causing the emissions will be stopped.

2.3 Storage Piles and Landfill Operations

Mixed bottom ash and fly ash is sent to staging piles within the active unit of the landfill to be sold at a later time. The moisture content in the mixed CCR material aids in forming an encapsulating outer shell to minimize fugitive emissions from wind-blown activity. To prevent fugitive emissions associated with windblown activity in the unencapsulated landfill, drier fly ash and economizer ash will be mixed with the higher moisture content bottom ash mixtures. In addition and on an as needed basis, a water truck will be used to wet down the exposed dust prone areas. At the end of each day, exposed areas of the existing landfill or new lateral expansion areas will be watered and compacted to minimize dust emissions until the next day of activity. During high-wind conditions, if nuisance visible emissions are observed beyond the property boundary, the exposed and/or dust prone areas of the landfill will be watered and disposal operations will cease until the wind-speeds decrease to an acceptable level and visible emissions do not create a nuisance beyond the property boundary. All watering of CCR material will be done in quantities so as not to accumulate free liquids as required by the facility's ADEQ-SWMD permit.

3.0 Conditioned CCR

Fly ash or any other CCR that is inherently dry and capable of generating windblown fugitive emissions that is designated for disposal will be conditioned prior to emplacement within the landfill. Conditioning may be performed through the application of water or various chemical dust suppressants in a matter that does not result in free liquids. Any dust suppressant used will comply with applicable VOC and HAP limits as specified in the Title V Operating Air Permit. Disposal by belly-dumping tanker trucks should be done in a manner that slowly releases a controlled amount of material over a short distance to minimize the generation of airborne particulate matter. Water or chemical dust suppressants should be employed while dumping or immediately following in a manner that does not cause harm to operational equipment. Disposal by end-dumping any dry CCR material should be done in a slow and controlled manner to minimize the generation of airborne particulate matter. Water or chemical dust suppressants should be employed during the disposal process in a manner that minimizes fugitive dust formation and which does not cause harm to operational equipment.

4.0 Citizen Complaints

In the event that a citizen intends to file a comment or complaint concerning visible dust emissions, please utilize the White Bluff Plant Fugitive Dust Control Comments or Complaints submittal form located on the publicly accessible CCR Rule Compliance Data and Information website.

All complaints are quickly followed up and remedied as necessary.

5.0 Plan Assessment

Visible emissions observations are performed on all material handling and conveying operations by personnel trained in (but not necessarily certified in) EPA Reference Method 9 in accordance with the facility Title V permit. Landfill activities are monitored by qualified personnel to ensure fugitive dust does not cause a nuisance off-site. Under normal conditions, off-site opacity less than or equal to 5 percent shall not be considered a nuisance. In the event of chronic visible emission problems associated with CCR sources, new fugitive dust controls methods will be evaluated. New control methods that prove to be effective and are technically and economically feasible will be employed. This plan will be amended as necessary to incorporate the new control measures. The amended Fugitive Dust Control Plan will be placed in the facility operating record, notification will be submitted to ADEQ-SWMD that the amended plan has been placed in the facility operating record and the amended plan will be made available on the publically accessible website.

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