# An Oklahoma DEQ Application for an Existing Inactive Surface Impoundment for Solid Waste Management of Coal Combustion Residuals at Muskogee Generating Station



**FACILITY LOCATION:** 5501 Three Forks Road Ft. Gibson, OK 74434



Revision 1 Date: May 17, 2018



			1. Name					
	С	klahoma	Gas and Electr	ric Company	1			
2. Street or P.O. Box		3. City or Town		4. State	5. Zip Code			
P.O. Box 321, M/C 610			Oklahom	Oklahoma City OK		7	73101	
6. Contact Person			7. Contact Number					
Tad Dow			(405) 553-3349					
<b>B. Facility In</b>	formation (OAC 252:5	517-3-6(a	n)(2)					
			1. Facility Nar	ne				
		Muske	ogee Generating	g Station				
2. Street or P.O. Box			3. City or Town		4. State	5. Zip Code		
5501 Three Forks Rd.			Fort Gibson		OK	7	4434	
6. County			7. Phone Number					
Muskogee			(918) 686-4388					
	8. Legal Des	cription	( 1/4, 1/4, 1/4, Sect	ion, Towns	hip, Range)			
	S	Sections 2	21, 22, 27, 28, 7	Г15N, R19E				
C. CCR Unit	Information (OAC 25	2:517-3-	6(a)(4-9)					
1. Legal	Description ( 1/4, 1/4, 1/4,	, Township, Range)		2. Proposed Permit Boundary				
	E <sup>1</sup> / <sub>2</sub> Section 22,	R19E		See Figure 1 below				
3. Proposed Disposal Area			4. Soil Borr	ow Area				
See Figure 1 below			N/A					
	5. La	titude/L	ongitude of Pe	rmit Bound	lary			
NW	Latitude	35° 45' 49"		Longitude		-95° 16' 57"		
NE	Latitude	35° 45' 49"		Longitude		-95° 16' 46''		
SE	Latitude	35° 45' 41"		Longitude		-95° 16' 46''		
SW	Latitude	35° 45' 41"		Longitude		-95° 16' 57"		
Entrance	Latitude	35° 46' 7"		Longitude		-95° 16' 59"		
· · · ·	· · · · ·	6	6. Location of S	Site				
	The site is situated NE of	of Musko	ogee and SW of	Fort Gibsor	n as shown in F	igure 2.		
	7. Description of Pro	ocessing	, Storage, and	Disposal Op	perations and U	Units		

The OG&E Muskogee (MK) facility operates three coal-fired burning units that generate dry fly ash and wet bottom ash coal combustion residuals (CCR). The CCR dry fly ash is managed in aboveground silos and beneficially reused as commercial products (e.g., concrete, bagged products, roadbed stabilization, etc.). The CCR bottom ash is sluiced into separate aboveground dewatering hoppers, loaded into trucks, and removed from the facility where it is reutilized for beneficial use within the aggregate market, or disposed in a permitted landfill. The 15-acre existing inactive surface impoundment previously received CCR material during dewatering bin maintenance or malfunction activities, and was also used when flushing discharge lines. The existing inactive CCR impoundment ceased operations on October 14, 2015. The inactive CCR impoundment is now only receiving direct rainfall within the impounded area. The rainfall accumulates towards the southwest corner of the impoundment and drains into an existing concrete sump which is then pumped and recycled into the ash recycle system for beneficial use. It should be noted that the MK inactive CCR surface impoundment meets the alternative timeframes established under OAC 252:517-15-5(b)(1).



Figure 1



# Figure 2





N/A

# 8. Type of Road Construction and Materials

All roads within the facility are constructed with impervious surface or gravel to ensure that they are passable during inclement weather by normal vehicular traffic.

## 9. Anticipated Heavy Equipment

#### 10. Maps

Maps as required by OAC 252:517-3-31 thru 46 are in the attachments to this application.

# 11. Data, Plans, and Specifications

- **a.** The information contained within this section provides the appropriate and applicable requirements for an existing inactive CCR surface impoundment that is scheduled for clean-closure in CY2018, in accordance with OAC 252:517-15-7. Additionally, it should be noted that the technical requirements for Inactive CCR Surface Impoundments that meet the alternative timeframes established under OAC 252:517-15-5(b)(1), have been prepared, submitted, and implemented in accordance with the schedule identified within OAC 252:517-15-5.
- b. Location Restrictions OAC 252:517-15-5(b)(2) requires the owner/operator to demonstrate compliance with location standards for inactive impoundments by April 16, 2020. Since the MK Inactive CCR impoundment will initiate clean closure in CY2018, the permit application location restrictions in OAC 252:517-3-6(a)(11)(A) and 252:517-5 are not applicable.
- **c. Operational Requirements** OAC 252:517-15-5(b)(4) requires the owner/operator to demonstrate compliance with operating criteria. OG&E has met the criteria and timeframes for these operating criteria by submitting the following: CCR Fugitive Dust Control Plan, Inflow Design Flood Control System, routine periodic inspections, and the annual inspection by a professional engineer.
- d. Stormwater Management Requirements The MK inactive CCR impoundment initial inflow design flood control assessment has been prepared in accordance with 40 CFR 257.82(c) and OAC 252:517-13-3(a). The CCR Rule inflow design flood control requirement is based on the hazard potential classification of the CCR surface impoundment. The inflow design flood for a low hazard potential classification is determined using a 100-year flood event. The 100-year flood elevation listed in the FEMA Flood Insurance Rate Map (FIRM 40101C0120F, Attachment 2) for the MK inactive CCR impoundment location is 515 feet msl. The embankment if the inactive impoundment is designed to have a crest elevation of 516 feet msl. The concrete outlet structure with a slide gate is located on the southwest corner of the impoundment and is used for recycling water into the bottom ash recycling system. Since the CCR impoundment is only receiving direct rainfall within the impounded area, there are no off-site rainfall runoff sources that contribute to the rainfall collected within the impoundment. The rainfall runoff collected within the impoundment. The rainfall runoff collected within the impoundment is pumped into the ash recycle system for beneficial use and the water level is being kept as low as possible until closure can be completed. The inactive CCR impoundment is flood protected up to 516 feet msl, which is 1-foot higher than the 100 year flood elevation.
- e. Closure Plan A closure plan was submitted to ODEQ on March 13, 2018.
- **f.** Aesthetic Enhancement OAC 252:517-3-7 requires a plan to enhance the visual harmony of a CCR unit. Since the MK inactive CCR impoundment will initiate clean closure in CY2018, these aesthetic enhancement requirements are not applicable.

### **12. Financial Assurance**

OG&E has prepared and has submitted a closure plan for the MK inactive CCR surface impoundment. Additionally, OG&E plans to close the in-active CCR Surface Impoundment in accordance with clean closure techniques. OG&E will subsequently prepare and submit a separate addendum to meet the financial assurance requirements of OAC 252:517-17 prior to issuance of a draft permit.



# D. Disclosure Statement (OAC 252:517-3-3(g)

In accordance with 27A O.S. §§ 2-10-302, OG&E, as a publicly held company required to file periodic reports under the Securities and Exchange Act of 1934, is provided links to the most recent annual and quarterly reports:

Annual Report – <u>http://phx.corporate-ir.net/phoenix.zhtml?c=106374&p=IROL-</u> secToc&TOC=aHR0cDovL2FwaS50ZW5rd2l6YXJkLmNvbS9vdXRsaW5lLnhtbD9yZXBvPXRlbmsmaXBhZ2 U9MTIwNzQ4MTgmc3Vic2lkPTU3&ListAll=1&sXBRL=1

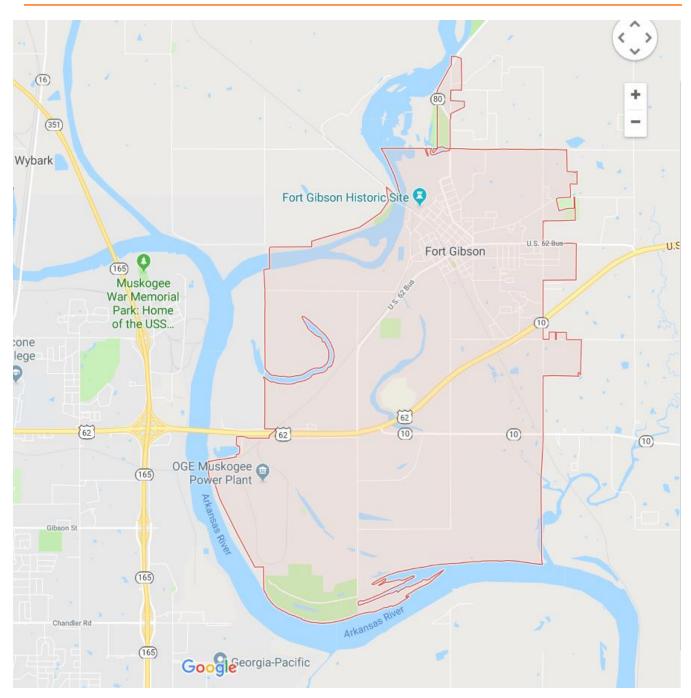
Quarterly Report - <u>http://phx.corporate-ir.net/phoenix.zhtml?c=106374&p=IROL-</u> secToc&TOC=aHR0cDovL2FwaS50ZW5rd2l6YXJkLmNvbS9vdXRsaW5lLnhtbD9yZXBvPXRlbmsmaXBhZ2 U9MTIyMjYyNDUmc3Vic2lkPTU3&ListAll=1&sXBRL=1

E. Certification



Attachment 1 General Location Map

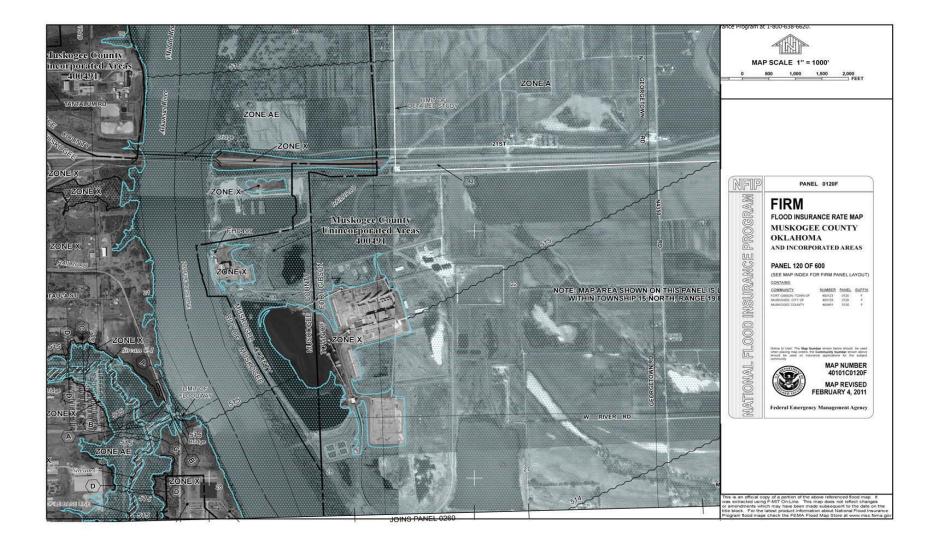






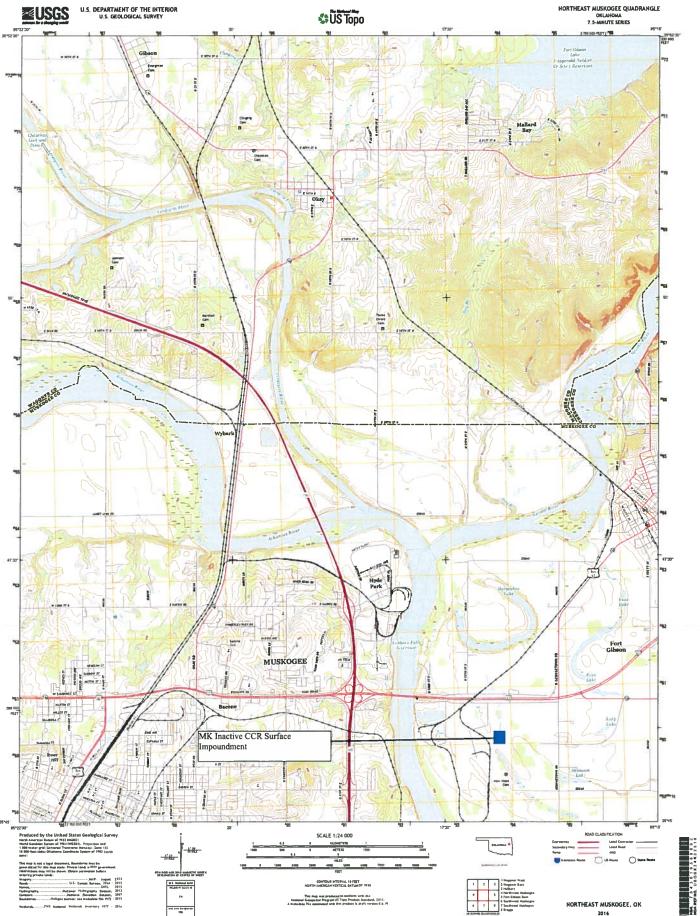
Attachment 2 Flood Plain Map







Attachment 3 Quadrangle Topographic Map







Attachment 4 Existing Contour Map/Site Map



Attachment 5 Surface Geologic Map



