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Submitted by
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9400 Amberglen Boulevard
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October 17, 2018

CCR Certification: Wetlands

§257.61

for the

Ash Pond and Equalization Pond

at the

San Miguel Plant

Revision 0

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Executive Summary

This Coal Combustion Residuals (CCR) Certification for the Ash Water Transport Pond Complex (Ash Pond A/B), and Equalization Pond at the San Miguel Electric Plant (the San Miguel Plant) owned by the San Miguel Electric Cooperative, Inc. (SMECI) has been prepared in accordance with the requirements specified in the USEPA CCR Rule under 40 Code of Federal Regulations §257.61 (a)(1)-(5). These regulations require that the specified documentation and assessments for existing surface impoundments be prepared by October 17, 2018. This requirement does not apply to existing landfills (Ash Pile).

This Certification for the Ash Pond and Equalization Pond meet the regulatory requirements as summarized in **Table ES-1**.

Table ES-1 –Certification Summary				
Report Section	CCR Rule Reference	Requirement Summary	Requirement Met?	Comments
2.1.1	§257.61 (a)(1)	<i>Clear and objective rebuttal of the presumption that an alternative to the CCR unit is reasonably available that does not involve wetlands.</i>	Yes	The San Miguel Plant was constructed in 1982 and no future development is planned; therefore, no alternatives are presented.
2.1.2	§257.61 (a)(2)	<i>Construction and operation of the CCR unit will not cause or contribute to harm done to waters and/or wetland species.</i>	Yes	Existing operation of the CCR units does not cause harm to waters and/or wetlands.
2.1.3	§257.61 (a)(3)	<i>CCR unit will not cause or contribute to significant degradation of wetlands.</i>	Yes	The existing CCR units do not cause or contribute to significant degradation of existing wetlands located within San Miguel Plant boundaries.
2.1.4	§257.61 (a)(4)	<i>Steps have been taken to attempt to achieve no net loss of wetlands.</i>	Yes	The San Miguel Plant was constructed in 1982 and no additional development is planned; therefore, no alternatives are presented.
2.1.5	§257.61 (a)(5)	<i>Sufficient information is available</i>	Yes	Sufficient information was available to complete the wetland certification.

A review of published data resources and a field investigation of the site confirmed that the San Miguel Ash Pond and Equalization Pond are not located in a wetland, as defined in 40 CFR 232.2. The impoundments were found to meet all requirements as required within the individual assessments in §257.61 (a)(1)-(5).

1 Introduction

1.1 Purpose of this Report

The purpose of the Wetlands Certification, as presented in this report, is to document the requirements specified in 40 Code of Federal Regulations (CFR) §257.61 (a)(1)-(5) have been met to support the applicable regulatory provisions for the San Miguel Plant Ash Pond and Equalization Pond.

The Ash Pond and Equalization Pond are existing coal combustion residual (CCR) surface impoundments as defined by 40 CFR §257.53. The CCR Rule requires a Wetlands Certification be developed for each existing CCR surface impoundment by October 17, 2018. This requirement does not apply to existing landfills (i.e, the Ash Pile).

The following table identifies the component of the Wetlands Certification which is discussed in §257.61 (a)(1)-(5).

Table 1-1 – CCR Rule Cross Reference Table		
Report Section	Title	CCR Rule Reference
2.1.1	Clean Water Act	§257.61 (a)(1)
2.1.2	Construction and Operation	§257.61 (a)(2)
2.1.3	Significant Degradation of Wetlands	§257.61 (a)(3)
2.1.4	No Net Loss of Wetlands	§257.61 (a)(4)
2.1.5	Sufficient Available Information	§257.61 (a)(5)

1.2 Brief Description of CCR Units

The San Miguel Plant is located in south central Atascosa County in Christine, Texas. The plant is surrounded by typical south Texas brush and pastureland used for livestock. The Plant has three CCR units which include two surface impoundments (the Ash Pond and the Equalization Pond) and one existing landfill (the Ash Pile). A Site Location Map showing the area surrounding the San Miguel Plant is included as **Figure 1 of Appendix A**. **Figure 2 in Appendix A** presents an aerial photograph of the San Miguel Plant and labels each CCR unit.

Ash Pond

The Ash Water Transport Pond complex (Ash Pond) contains two pond cells, Ash Pond A on the north side and Ash Pond B immediately adjacent to the south. The system was constructed as a side-hill impoundment with the northern dike at or near natural grade and includes a central “splitter dike” that separates the pond into north and south sections with a connecting weir. The Ash Pond is generally only closed to isolate the north or south pond for cleaning. According to a San Miguel representative, the Ash Pond was last dredged in 2016.

The total dike perimeter of the Ash Pond is approximately 6,000 feet, and the approximate surface area is 26 acres. The maximum dike height is approximately 20 feet with side slopes ranging from 2.5 to 1 to 3.0 to 1 (horizontal to vertical), and an average crest width of 10 feet. The elevation of the dike crest is 315 feet¹ with a maximum pool water surface elevation of 313.5 feet (18-inches below crest).

Equalization Pond

The Equalization Pond is a diked impoundment that shares its western dike with a water well storage pond. The perimeter length around the Equalization Pond is approximately 4,800 feet, and the surface area is approximately 25 acres. The maximum dam height is approximately 20 feet with 3 to 1 (horizontal to vertical) side slopes and an average crest width of 10 feet. The elevation of the dike crest is 295 feet with a maximum pool level gage elevation of 293 feet (24 inches below crest).

¹ Unless otherwise noted, all elevations in this report are in the NAVD88 datum.

2 Wetlands

Regulatory Citation: 40 CFR §257.61 Wetlands

The Wetlands Certification for the Ash Pond and Equalization Pond are described in this section.

2.1 Wetlands

Regulatory Citation: 40 CFR §257.61 (a):

- *New CCR landfills, existing and new CCR surface impoundments, and all lateral expansions of CCR units must not be located in wetlands, as defined in § 232.2 of this chapter, unless the owner or operator demonstrates by the dates specified in paragraph (c) of this section that the CCR unit meets the requirements of paragraphs (a)(1) through (5) of this section.*

The San Miguel Plant was constructed in 1982; as such, the Ash Pond and Equalization Pond are existing surface impoundments. A review of published data resources and a field investigation of the site confirmed that the San Miguel Ash Pond and Equalization Pond are not located in a wetland, as defined in 40 CFR 232.2. The San Miguel Plant does not have any future plans to construct new CCR Units or new lateral expansions.

2.1.1 Clean Water Act

- *Where applicable under section 404 of the Clean Water Act or applicable state wetlands laws, a clear and objective rebuttal of the presumption that an alternative to the CCR unit is reasonably available that does not involve wetlands.*

The San Miguel Plant was constructed in 1982; as such, the Ash Pond and Equalization Pond are existing surface impoundments and are not located within wetlands. No alternative CCR unit locations are proposed for this certification. Additionally, the San Miguel Plant does not have any future plans to construct additional CCR Units.

2.1.2 Construction and Operation

- *The construction and operation of the CCR unit will not cause or contribute to any of the following: (i) A violation of any applicable state or federal water quality standard; (ii) A violation of any applicable toxic effluent standard or prohibition under section 307 of the Clean Water Act; (iii) Jeopardize the continued existence of endangered or threatened species or result in the destruction or adverse modification of a critical habitat, protected under the Endangered Species Act of 1973; and (iv) A violation of any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary.*

The Ash Pond and Equalization Pond do not cause or contribute to any of the standards mentioned. The ponds are zero discharge facilities. All water is channeled through a closed-loop system back to the plant. See **Table 2-1** for additional details.

2.1.3 Significant Degradation of Wetlands

- *The CCR unit will not cause or contribute to significant degradation of wetlands by addressing all of the following factors: (i) Erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the CCR unit; (ii) Erosion, stability, and migration potential of dredged and fill materials used to support the CCR unit; (iii) The volume and chemical nature of the CCR; (iv) Impacts on fish,*

wildlife, and other aquatic resources and their habitat from release of CCR; (v) The potential effects of catastrophic release of CCR to the wetland and the resulting impacts on the environment; and (vi) Any additional factors, as necessary, to demonstrate that ecological resources in the wetland are sufficiently protected.

The Ash Pond and Equalization Pond do not cause or contribute to significant degradation of wetlands. **Table 2-1** addresses each factor mentioned above.

2.1.4 No Net Loss of Wetlands

- *To the extent required under section 404 of the Clean Water Act or applicable state wetlands laws, steps have been taken to attempt to achieve no net loss of wetlands (as defined by acreage and function) by first avoiding impacts to wetlands to the maximum extent reasonable as required by paragraphs (a)(1) through (3) of this section, then minimizing unavoidable impacts to the maximum extent reasonable, and finally offsetting remaining unavoidable wetland impacts through all appropriate and reasonable compensatory mitigation actions (e.g., restoration of existing degraded wetlands or creation of man-made wetlands)*

The San Miguel Plant does not have any future plans to construct additional CCR Units; therefore, no future net loss of wetlands is anticipated.

2.1.5 Sufficient Available Information

- *Sufficient information is available to make a reasoned determination with respect to the demonstrations in paragraphs (a)(1) through (4) of this section.*

Sufficient information has been made available to make a reasoned determination in regards to existing wetlands within the Study Area.

Table 2-1 summarizes the CCR regulations listed above and verifies that the Ash Pond and Equalization Pond are in compliance.

Table 2-1 – CCR Rule Requirement Summary Table			
CCR Regulation Items	CCR Citation	Does the Unit satisfy the CCR Rule Requirements?	Justification
Where applicable under section 404 of the Clean Water Act or applicable state wetlands laws, a clear and objective rebuttal of the presumption that an alternative to the CCR unit is reasonably available that does not involve wetlands.	§257.61(a)(1)	Yes	The Ash Pond and Equalization Pond are existing surface impoundments; therefore, are not located in wetlands. No alternative CCR unit locations are proposed for this certification. Additionally, the San Miguel Plant does not have any future plans to construct additional CCR Units.

Table 2-1 – CCR Rule Requirement Summary Table

CCR Regulation Items	CCR Citation	Does the Unit satisfy the CCR Rule Requirements?	Justification
A violation of any applicable state or federal water quality standard by CCR unit construction or operation	§257.61(a)(2)(i)	Yes	No violations of applicable state or federal water quality standards were mentioned during conversations with San Miguel Plant representatives. The ponds are a zero discharge facility. All water is channeled through a closed-loop system back to the plant.
A violation of any applicable toxic effluent standard or prohibition under section 307 of the Clean Water Act by CCR unit construction	§257.61(a)(2)(ii)	Yes	The existing Ash Pond and the Equalization Pond are fully contained surface impoundments as water is channeled through a closed-loop system back to the plant. No release of toxic effluent discharge into potentially jurisdictional waters of the U.S. has been observed.
Jeopardize the continued existence of endangered or threatened species by CCR unit construction and operation, or result in destruction or adverse modification of critical habitat	§257.61(a)(2)(iii)	Yes	The existing Ash Pond and Equalization Pond currently do not jeopardize the continued existence of federally listed endangered or threatened species or result in the destruction or adverse modification of a critical habitat (as they were previously constructed). The ponds are a zero discharge facility. All water is channeled through a closed-loop system back to the plant.
A violation of any requirement under the Marine Protection, Research, and Sanctuaries Act of 1972 for the protection of a marine sanctuary by CCR unit construction	§257.61(a)(2)(iv)	Yes	The existing Ash Pond and Equalization Pond do not violate any requirements under the Marine Protection, Research, and Sanctuaries Act of 1972, as the San Miguel Plant is inland, approximately 82 miles from the Gulf of Mexico.

Table 2-1 – CCR Rule Requirement Summary Table

CCR Regulation Items	CCR Citation	Does the Unit satisfy the CCR Rule Requirements?	Justification
Contribute to significant degradation of wetlands by erosion, stability, and migration potential of native wetland soils, muds and deposits used to support the CCR unit	§257.61(a)(3)(i)	Yes	Normal operation of the CCR units did not appear to cause or contribute to significant degradation of wetlands by erosion, stability, and migration potential of native wetland soils, muds, and deposits or the migration of dredged or fill materials.
Contribute to significant degradation of wetlands by erosion, stability, and migration potential of dredged and fill materials used to support the CCR unit	§257.61(a)(3)(ii)	Yes	The dike side slopes around the Ash Pond and Equalization Pond appeared structurally sound. Additionally, the dike side slopes were fully vegetated and no evidence of erosion was observed. As such, normal operation of the CCR unit did not appear to cause or contribute to significant degradation of wetlands by erosion, stability, and migration potential dredged or fill materials.
Contribute to significant degradation of wetlands by the volume and chemical nature of the CCR	§257.61(a)(3)(iii)	Yes	The volume and chemical nature of the Ash Pond and Equalization Pond do not cause significant degradation of wetlands in their existing condition. The ponds are a zero discharge facility. All water is channeled through a closed-loop system back to the plant.
Contribute to significant degradation of wetlands by impacts on fish, wildlife, and other aquatic resources and their habitat from release of CCR	§257.61(a)(3)(iv)	Yes	The existing Ash Pond and the Equalization Pond are fully contained surface impoundments as water is channeled through a closed-loop system back to the plant. No release of toxic effluent discharge into potentially jurisdictional waters of the U.S. was observed.

Table 2-1 – CCR Rule Requirement Summary Table

CCR Regulation Items	CCR Citation	Does the Unit satisfy the CCR Rule Requirements?	Justification
Contribute to significant degradation of wetlands by the potential effects of catastrophic release of CCR to the wetland and the resulting impacts on the environment	§257.61(a)(3)(v)	Yes	Catastrophic release from the Ash Pond and Equalization Pond into adjacent wetlands could result in impacts to the environment and downstream streams (Nueces River). However, the CCR Certification Reports (Structural Stability, Safety Factor Assessment, and Hydrologic and Hydraulic Analysis) have analyzed the hazard potential and the impoundments meet the certification requirements of the CCR rule.
Contribute to significant degradation of wetlands by any additional factors to demonstrate that ecological resources in the wetland are sufficiently protected	§257.61(a)(3)(vi)	Yes	Ecological resources within the wetland are sufficiently protected from an Ash Pond and Equalization Pond release. Annual engineering inspection reports are completed to identify deficiencies associated with Ash Pond and Equalization Pond impoundment structures (available at http://www.smece.net/CCR.html).
Net loss of wetlands by avoiding impacts to wetlands to the maximum extent reasonable as required by paragraphs (a)(1) through (3) of this section.	§257.61(a)(4)	Yes	The San Miguel Plant does not have any future plans to construct additional CCR Units; therefore, no future net loss of wetlands is anticipated.
Sufficient information to make a reasoned determination with respect to the demonstrations in paragraphs (a)(1) through (4) of this section	§257.61(a)(5)	Yes	Sufficient information has been made available to make a reasoned determination in regards to existing wetlands within the Study Area.

3 Certification

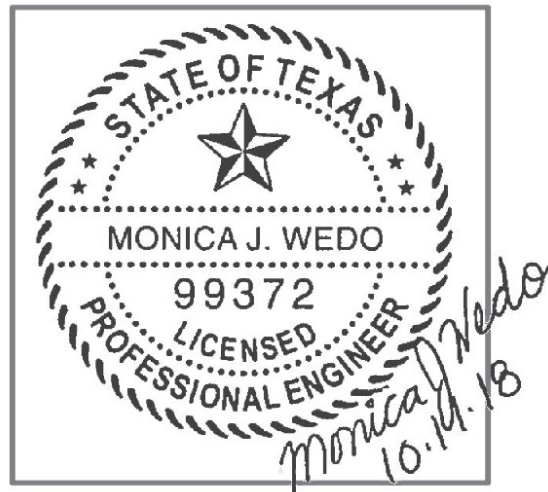
This Certification Statement documents that the Ash Pond and Equalization Pond at the San Miguel Plant meets the Wetlands Certification requirements specified in 40 CFR §257.61. The Ash Pond and Equalization Pond are existing CCR surface impoundments as defined by 40 CFR §257.53. The CCR Rule requires that a Wetlands Certification be prepared for any existing CCR surface impoundments by October 17, 2018.

CCR Unit: San Miguel Plant; Ash Pond and Equalization Pond

I, Monica Wedo, being a Registered Professional Engineer in good standing in the State of Texas, do hereby certify, to the best of my knowledge, information, and belief that the information contained in this certification has been prepared in accordance with the accepted practice of engineering. I certify, for the above referenced CCR Units, that the demonstration regarding the location of the CCR Units in the wetlands as included in the Wetlands Certification dated October 17, 2018 meets the requirements of 40 CFR §257.61.

Monica Wedo
Printed Name

10.11.18
Date



4 Limitations

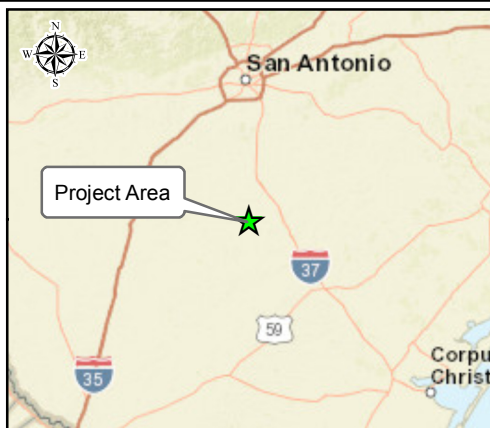
In preparing this report, AECOM has reviewed background information, design basis, and other data furnished to AECOM by SMECI, as well as relevant available information from previous and current investigations of the site. AECOM has relied on this information as furnished without independent verification, and is not responsible for the accuracy or completeness of this information. AECOM shall not be held responsible for conditions or consequences arising from relevant facts that were concealed, withheld, or not fully disclosed by SMECI at the time this report was prepared. In addition, the conclusions expressed in this report are subject to certain conditions and assumptions, which are noted in this report and below. Any party reviewing this report must carefully review and consider all such conditions and assumptions.

The conclusions made in this report are based on the assumption that the subsurface soil, rock, and groundwater conditions at the site do not deviate appreciably from those conditions disclosed in the site-specific exploratory borings. The conclusions in this report are also based on AECOM's understanding of current plant operations, maintenance, storm water handling, and ash handling procedures at the station based on information provided by SMECI. The passage of time may result in changes in site conditions and variations, technology, economic conditions, and regulatory provisions, all which could render the report inaccurate.

This report was prepared by AECOM in accordance with generally accepted engineering and scientific practice in effect at the time of AECOM's assessment of the subject property. This report was prepared pursuant to an agreement between AECOM and SMECI and is for the exclusive use of the SMECI. Any other reliance on this report shall be at the user's sole risk.

Appendix A Figures

Figure 1 – Site Location Map
Figure 2 – Aerial Photograph Map



Legend
 Study Area
 — Roads



SITE LOCATION MAP

**SAN MIGUEL ELECTRIC COOPERATIVE, INC.
 WETLAND CERTIFICATION**

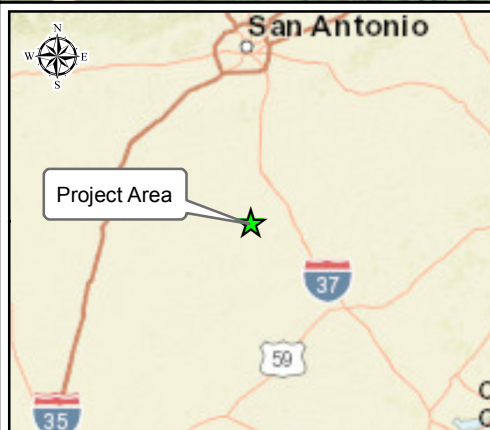
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DATE DEC 2017

PROJECT 60530067

FIGURE 1



Legend
 Study Area

0 500 1,000
 Feet

Aerial Source: NAIP 2016 (10/10/2016)



2016 AERIAL PHOTOGRAPH MAP

**SAN MIGUEL ELECTRIC COOPERATIVE, INC.
 WETLAND CERTIFICATION**

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DATE DEC 2017

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FIGURE 2

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AECOM (NYSE: ACM) is a global provider of professional technical and management support services to a broad range of markets, including transportation, facilities, environmental, energy, water and government. With approximately 45,000 employees around the world, AECOM is a leader in all of the key markets that it serves. AECOM provides a blend of global reach, local knowledge, innovation, and collaborative technical excellence in delivering solutions that enhance and sustain the world's built, natural, and social environments. A Fortune 500 company, AECOM serves clients in more than 100 countries and has annual revenue in excess of \$6 billion.