

**DOMINION ENERGY
SOUTH CAROLINA, INC.**



**ALTERNATIVE CLOSURE
ANNUAL PROGRESS REPORT**

FOR THE

WILLIAMS STATION FGD POND

BERKELEY COUNTY, SOUTH CAROLINA

MAY 17, 2020
(Revised November 2020)

DOMINION ENERGY SOUTH CAROLINA, INC. WILLIAMS STATION FGD POND ANNUAL PROGRESS REPORT – ALTERNATIVE CLOSURE

INTRODUCTION

This Revised Alternative Closure Annual Progress Report for the Dominion Energy South Carolina, Inc. (DESC) Williams Station FGD Pond is prepared pursuant to *40 CFR §257.103 Alternative closure requirements* (2019), which states the following:

The owner or operator of a CCR landfill, CCR surface impoundment, or any lateral expansion of a CCR unit that is subject to closure pursuant to § 257.101(a), (b)(1), or (d) may continue to receive CCR in the unit provided the owner or operator meets the requirements of either paragraph (a) or (b) of this section.

(a)(1) No alternative CCR disposal capacity. Notwithstanding the provisions of § 257.101(a), (b)(1), or (d), a CCR unit may continue to receive CCR if the owner or operator of the CCR unit certifies that the CCR must continue to be managed in that CCR unit due to the absence of alternative disposal capacity both on-site and off-site of the facility. To qualify under this paragraph (a)(1), the owner or operator of the CCR unit must document that all of the following conditions have been met:

- (i) No alternative disposal capacity is available on-site or off-site. An increase in costs or the inconvenience of existing capacity is not sufficient to support qualification under this section;
- (ii) The owner or operator has made, and continues to make, efforts to obtain additional capacity. Qualification under this subsection lasts only as long as no alternative capacity is available. Once alternative capacity is identified, the owner or operator must arrange to use such capacity as soon as feasible;
- (iii) The owner or operator must remain in compliance with all other requirements of this subpart, including the requirement to conduct any necessary corrective action; and
- (iv) The owner or operator must prepare an annual progress report documenting the continued lack of alternative capacity and the progress towards the development of alternative CCR disposal capacity.

PROGRESS SUMMARY

As part of the CCR Rule Location Restriction compliance demonstration dated October 2018, DESC reported that the Williams Station FGD Pond does not satisfy the requirements of §257.63(a) – Seismic Impact Zones. However, because the FGD Pond is critical to the plant operations and there is no other technically feasible on-site or off-site alternate capacity to store the FGD blowdown wastewater, DESC elected to continue operation of the FGD Pond in accordance with the alternative

closure requirements identified in §257.103. DESC continues operating the Williams Station FGD Pond while undergoing Alternative Closure in accordance with 40 CFR §257.103 as described in the Notification of Intent to Comply with Alternative Closure Requirements (first reported April 17, 2019 and revised November 2020). A narrative discussion of progress in accordance with §257.103(a)(1)(iv) and §257.103(c)(2) is provided in the following sections.

Status of Capacity

The FGD Pond remains in operation due to continued lack of alternative CCR disposal capacity.

Alternative Capacity Progress

DESC continues to make progress towards development of alternative CCR disposal capacity. DESC staff and consulting engineers continue to evaluate and assess other technologies to treat the FGD wastestream either on-site or off-site and temporarily or permanently in an expedited time period that would be deemed technically feasible. DESC has also procured geotechnical engineering services to study the site specific seismic stability safety factors and develop solutions to stabilize the FGD Pond berms to meet the seismic slope stability safety factors.

Based on the engineering studies completed through May 2020, no alternative capacity for on-site or off-site treatment has been developed. However, the geotechnical engineering studies identified that the most technically feasible alternative to stabilize the foundation soils supporting the perimeter berms of the FGD Pond and achieve seismic stability is to install deep soil mixing (DSM) panels around the perimeter of the current FGD Pond. DESC then determined that the most effective approach to achieve on-site alternative disposal capacity for the FGD blowdown wastestream was to complete the DSM stabilization, initiate closure of the FGD Pond and then open a new CCR surface impoundment in the same location as the current FGD Pond. Therefore, DESC has concentrated on planning and design for this alternative capacity approach. A summary of actions taken for this approach include the following:

- DESC hired F&ME in June 2017 to perform the location restriction evaluations for the FGD Pond well in advance of the required submittal date of October 2018. F&ME issued an initial report in October 2017 that concluded the pond did not meet the seismic location restriction and recommended a site-specific seismic evaluation. Afterwards, DESC and their consultants evaluated several options as part of the site alternatives, including meeting

the seismic requirements or installing an alternative wastewater treatment system for the FGD Pond.

- In October 2018, DESC submitted the Location Restriction for the Williams Station FGD Pond stating the pond does not satisfy the requirements of §257.63(a) – Seismic Impact Zones. In April 2019, DESC filed a Notification of Intent to Comply with Alternative Closure Requirements pursuant to §257.103(a).
- In April 2019, DE initiated a procurement process to select a geotechnical engineering consulting company to perform a site specific seismic study and evaluation of the FGD Pond perimeter dikes. DESC selected Terracon Consultants, Inc. (Terracon) to perform the study in June 2019.
- The site specific seismic study required field explorations to characterize the subsurface conditions, followed by engineering calculations and analyses to determine the slope stability safety factors for the perimeter dikes. The engineering study was completed in November 2019, which confirmed that the seismic slope stability safety factors for the FGD Pond perimeter dikes did not meet the minimum criteria.
- Terracon initiated a supplemental geotechnical engineering study in November 2019 and completed in January 2020 to develop alternate methods to stabilize the foundation soils supporting the perimeter dikes and increase the seismic slope stability safety factors above the minimum requirements.
- Based on the geotechnical engineering recommendations presented in the January 2020 reporting, DESC has determined that the most feasible method to sufficiently increase the seismic stability to meet the requirement of the CCR Rule is to install deep soil mixing (DSM) panels. Further, the procurement process to obtain a design/build specialty contractor to design and construct the DSM panels is underway as of May 2020.

Further updates will be provided in the 2021 Annual Progress Report.

Encountered Problems

The FGD Pond continues to remain in compliance with all other requirements §257.103 and continues to make progress toward alternative capacity as planned. No significant problems have been encountered that require specific actions to resolve.