

Santee Cooper - Cross Generating Station

Notice of Planned Participation - Annual Report of Progress

(40 CFR Part 423 Section 19, Paragraph (h)(3) and (h)(4))

Date Submitted: October 10, 2023
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Santee Cooper's Cross Generating Station (Cross) is a four-unit, coal-fired electric generating station located in Pineville, South Carolina. Cross is subject to EPA's Effluent Limit Guidelines (ELGs) under 40 CFR 423: Steam Electric Power Generating Point Source. Revised ELGs under the Steam Electric Reconsideration Rule were published on October 13, 2020 and included new requirements for flue gas desulfurization (FGD) wastewater (WW) discharges. Santee Cooper submitted a Notice of Planned Participation (NOPP) for Cross on a contingent basis, on October 13, 2021 to SCDHEC Water Facility Permitting Division, noting the potential for Cross to establish effluent discharge limitations set by the Voluntary Incentives Program (VIP) under 40 CFR Part 423 Section 13 Paragraph g3i.

The purpose of this document is to provide a progress report to DHEC regarding Cross's contingent election to comply with the voluntary incentive plan (VIP) requirements for FGD wastewater treatment required by 40 CFR Part 423 Section 19, Paragraph h3 and h4.

40 CFR Part 423.19.h(3) Annual progress report. After submission of the Notice of Planned Participation in paragraph (h)(1), a progress report shall be filed with the permitting authority, or control authority in the case of an indirect discharger.

40 CFR Part 423.19.h (4) Contents. An Annual Progress Report shall detail the completion of interim milestones presented in the engineering dependency chart from the Notice of Planned Participation since the previous progress report, provide a narrative discussion of completed, missed, or delayed milestones, and provide updated milestones.

Membrane Treatment (VIP) Milestone Progress

The October 2021 NOPP was submitted to retain the VIP alternative as an option while biological treatment systems pilots for BAT continued, and additional data and cost were evaluated. Since submission of the October 2022 NOPP annual update, Santee Cooper completed evaluation of both VIP and BAT options. A summary of each alternative evaluated and the ranking methodology was included in the Preliminary Engineering Report submitted to DHEC on March 12, 2023 and approved on May 5, 2023 under LOA-006636. Ultimately, Santee Cooper elected to proceed with EPA's BAT of physical-chemical and biological treatment with Ultrafiltration based on the ranking methodology presented in the March 2023 PER. Though Santee Cooper retains the VIP alternative given the regulatory uncertainty.

Biological Treatment (BAT) Status

Santee Cooper also provided SCDHEC with a proposed schedule for compliance with the 2020 ELG Rule generally applicable limitations for Cross Generating Station on March 2, 2021. Since the October 2022 Annual NOPP Report, pilot study results and multiple alternative technologies were evaluated to address the ELG requirements and identify the recommended treatment approach. Santee Cooper selected EPA's BAT of Physical-Chemical and Biological Treatment with Ultrafiltration based on the ranking methodology presented in the March 2023 PER. As of the date of this report, Santee Cooper has selected a technology provider of the treatment solution and a majority of the engineering design has

been completed. A Final Engineering Report and application for Wastewater Treatment Construction was submitted to DHEC Bureau of Water (BOW) on September 7, 2023, with construction planned to begin January 2024.

Projected Milestone Delays

Announcement and delay of the proposed ELG revised rule along with finalization of the Cross NPDES permit delayed final decisions regarding the technology path to proceed with. On November 19, 2021, Santee Cooper requested that DHEC include provisions similar to Plant Bowen in Georgia, allowing BAT and VIP in the Cross NPDES permit. The regulatory uncertainty delayed both the BAT and VIP option schedules, as strategic decisions on current technology proposals were placed on hold until the fall of 2022 in expectation that a draft ELG Revised Rule might provide additional certainty.

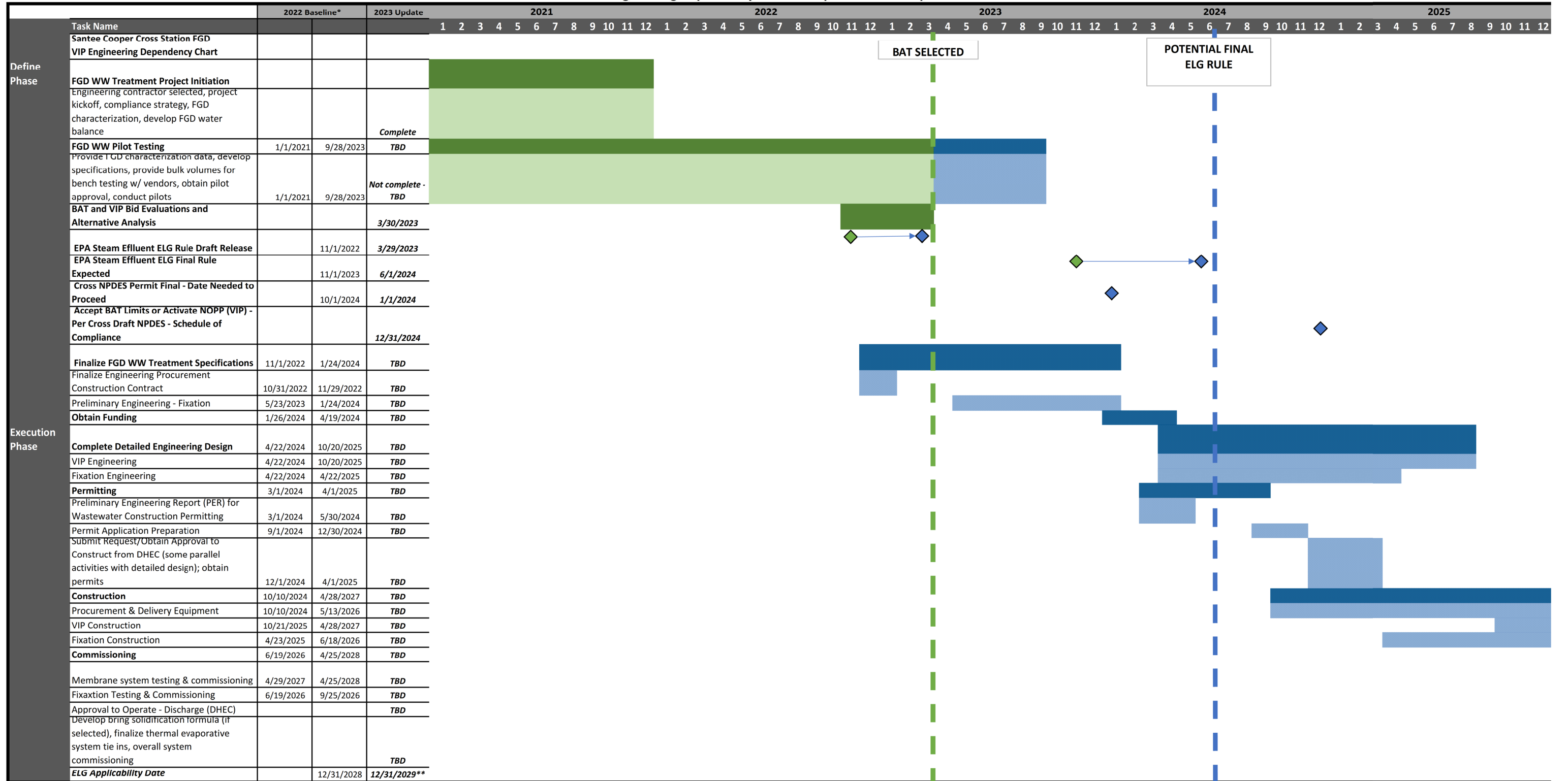
In the absence of a draft ELG Rule – and in recognition that a final rule may look very different from early agency drafts - Santee Cooper made the decision to proceed with the generally applicable BAT standard treatment approach from the 2020 ELG Rule. As the 2020 ELG rule is the only rule in force and as EPA has indicated that utilities should continue to follow it, Santee Cooper selected EPA’s BAT of physical-chemical and biological treatment with Ultrafiltration based on the ranking methodology presented in the March 2023 PER (LOA-006636). The draft ELG Revised Rule was published in the Federal Register March 29, 2023.

Waiting on a final rule is not an option in this case, because EPA has not granted enough time for this. In other words, we cannot be sure EPA won’t revert to the 2020 rule anyway, so waiting to get started constructing the new treatment system would make complying with the 2020 rule impossible, since EPA has not chosen to stay it or delay compliance dates while they write a new rule. At this time it seems unlikely that EPA will have a final rule before summer of 2024.

Santee Cooper also worked with DHEC Bureau of Water (BOW) to add language to the Cross NPDES permit providing an option to transfer to comply with the VIP option. The current draft NPDES permit for Cross Station requires Santee Cooper to notify DHEC BOW by December 31, 2024 if the facility will implement the generally applicable effluent guidelines (BAT) or chose to activate the NOPP to implement the voluntary incentives program (VIP).

The preliminary milestones and engineering dependency chart previously provided in October of 2021 for compliance with VIP limitations has been further expanded and updated based on the information provided above and included in Attachment 1. Activity has not proceeded with the VIP option as indicated by the green vertical line in the Schedule Summary (Attachment 1); should EPA require a transition in technology, significant schedule delays would result from shifting project paths to comply with the VIP subcategory or any possible new similar zero discharge category.

Engineering Dependency Schedule Updates for VIP Option



*Baseline updated with 2022 Report on 10/10/2022

** 2023 EPA Draft ELG Rule noted 12/31/2029 Compliance Date

KEY:

- Completed
- To Be Determined - Not Complete

