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November 30, 2023

**Subject: §257.103(f)(2) ANNUAL PROGRESS REPORT DOCUMENTING
THE CONTINUED LACK OF ALTERNATIVE CAPACITY AND
PROGRESS TOWARDS CLOSURE OF THE FAP AND BAP
Cholla Power Plant – Navajo County, Arizona**

In accordance with the requirement for an annual progress report required by 40 CFR §257.103(f)(2)(x), this report documents the continued lack of alternative disposal capacity for coal combustion residuals (CCR) at the Arizona Public Service Company (APS) Cholla Power Plant during the reporting period (i.e., December 1, 2022 through November 30, 2023). This report also describes progress made during the reporting period towards closure of two CCR units that APS has requested a site-specific alternative deadline to initiate closure for: the Fly Ash Pond (FAP) and the Bottom Ash Pond (BAP). Our demonstration prepared pursuant to §257.103(f)(2) was submitted to the United States Environmental Protection Agency (US EPA) on November 30, 2020 and was determined by the US EPA to be complete on January 11, 2022. As a consequence of submitting a complete demonstration, the deadline to cease receipt of waste at the FAP and BAP has been tolled until the US EPA issues a final determination regarding the demonstration.

Background. The 420-acre FAP and 80-acre BAP are unlined surface impoundments that receive CCR from coal-fired boiler operations at the Cholla Power Plant. In accordance with the requirements of federal CCR regulations, both the FAP and BAP must cease receiving CCR in the near term and “close for cause.” Since APS plans to cease coal-fired boiler operations at Cholla Power Plant no later than April 2025 and complete closure of the FAP and BAP by October 17, 2028, APS seeks to continue receiving CCR and non-CCR wastestreams in the FAP and BAP under the alternative closure provision of §257.103(f)(2) through June 2025 to accommodate decommissioning.

Lack of Alternative Disposal Capacity. There have been no changes in alternative disposal capacity since submittal of our §257.103(f)(2) demonstration. If the FAP and BAP were not available to receive CCR, coal-fired electrical generation operations at Cholla Power Plant would need to shut down because:

- The FAP and BAP are the only existing CCR units located on-site that are sized and designed appropriately to receive CCR and non-CCR wastestreams generated by operation of Cholla Power Plant.
- Management of CCR and non-CCR wastestreams in wet temporary storage on-site is not technically feasible, let alone safe or adequately protective of the environment, given the projected volumes and the corresponding number of temporary tanks that would be required to contain the wastestreams.
- It is not technically feasible to send wet CCR off-site for disposal – there is no appropriate off-site treatment or disposal facility nearby that the CCR could be piped to and trucking/conveying by rail significant quantities of liquids to an appropriate waste processing facility or landfill is unlikely to be successful. Off-site transport of this

liquid CCR risks creating significant threats to public safety; these risks far out-weigh the benefit of off-site disposal of CCR.

Progress Towards Closure. During the reporting period, APS elected to modify the closure strategy for the BAP from closure in place to closure by removal with placement of the excavated CCR from the BAP in the Bottom Ash Monofill (BAM), an existing CCR landfill at the facility. APS is currently in the process of advancing a conceptual design for closure of the BAP by removal and will modify the closure plan to reflect this change as soon as feasible.

Attachment D(2) of our §257.103(f)(2) demonstration identified multiple tasks required to advance closure of the FAP and BAP by October 17, 2028. An updated version of Attachment D(2) is enclosed with this report. Progress on these tasks is as follows:

- Minimize discharge to the FAP – Since the date of the previous annual progress report (November 29, 2022), discharges from an overflow/blowdown flash tank to the scrubber solids sump that discharges to the FAP were rerouted as part of our commitment to minimizing discharges into the FAP.
- FAP Water Level Monitoring – Decant (free) water level monitoring in the FAP continued during the reporting period and is being conducted to track progress of dewatering the unit. Based on the results of monthly monitoring, the level of the FAP has declined by 2.9 feet thus far in 2023 which is higher than declines typically observed by this time each year. Declines between the December of the previous year and November of 2020 and 2021 were 1.5 and 2.0 feet, respectively; above average rainfall during the summer and fall of 2022 is believed to have resulted in an a relatively low level of decline in 2022 (0.27 feet).
- Stockpile bridge lift material at the FAP – APS is currently in the process of relocating bottom ash from the BAM to be used as future bridge lift material; this activity began in July 2023 and is anticipated to continue through most of 2024. The estimated volume of bottom ash relocated from the BAM to the FAP to date is approximately 160,000 cubic yards.
- Land Acquisition for Closure – Decommissioning and closure planning supporting the shutdown of Cholla Power Plant has necessitated a review of property ownership in the vicinity of the facility. A comprehensive ALTA survey of Cholla property began in September 2022 and was completed in June 2023. The survey has been useful in discussions with adjacent private property owners regarding the potential acquisition of/access to land for sources of borrow materials used in closure. An access agreement for testing of potential soils near the FAP was executed in October 2023. Preliminary conceptual designs for the FAP identified the potential need for land to install stormwater diversion channels around the FAP. At this time, retention of stormwater upstream of the FAP is planned and the acquisition of land for stormwater diversion channels around the FAP is not expected to be necessary.
- Run-On Diversions and Cofferdams (Push Up) Dams – Temporary dams used to divert stormwater upstream of the FAP from contributing run-on to the FAP were completed in December 2022.
- FAP Dewatering – APS conducted detailed design, procurement, and installation of twelve RWI Pittboss mechanically enhanced evaporators to promote evaporation of free water in the FAP in 2022. Since the units began operating in August of 2022, issues with the units becoming detached from their mooring and capsizing led to intermittent operation. The evaporators were taken offline in early March 2023 and redeployed using a new anchoring system in June 2023. Given the limited progress

of decant water evaporation, additional measures to address the water were progressed during the reporting period.

- FAP Geotechnical Investigations and Design Engineering – During the reporting period, geotechnical investigations assessing the surface of the FAP for stability were conducted. Investigations included the construction and testing of a number of roads using various materials and evaluation of nearby soils for use as capping material. With respect to design engineering, an analysis of three different options for addressing stormwater run-on and capping approaches was conducted which identified full containment of stormwater run-on upstream of the FAP as the most viable approach to stormwater management after closure. An evapotranspiration capping strategy was retained as the preferred method for capping the FAP.
- Dewatering of Drainable Porewater at the FAP Using Extraction Wells - Preliminary assessment of engineering control measures to remove drainable porewater within the waste sluiced to the FAP began in 2022; this work has continued through 2023 and included the installation and operation of multiple dewatering test wells in the FAP. The results of testing will assist in refining the FAP closure plan. Once the design of engineering control measures has been suitably progressed, the FAP closure plan will be updated to demonstrate closure performance requirements.
- BAP Design Engineering – Given the change in closure approach for this unit, APS progressed the conceptual design of closing the BAP by removal which is anticipated to include removal of bottom ash from the BAP with placement in the BAM. A lateral expansion of the BAM will likely be required into the northern footprint of the BAP once bottom ash has been removed from this region.

If you have any questions regarding this progress report, please contact Natalie Chrisman Lazarr at 602.316.1324 or via email at natalie.chrisman@aps.com.

Sincerely,

Michael Hancock

Michael Hancock
Plant Manager - Cholla Power Plant

Enclosure: Attachment D(2) – Updated for 2023

ATTACHMENT D(2) – 2023 Updates in GREEN Text

**CHOLLA POWER PLANT
CLOSURE SCHEDULE NARRATIVE
40 CFR 257.103(f)(2)(v)(D)**

Arizona Public Service Company (APS) has been planning for the closure of the Fly Ash Pond (FAP) and Bottom Ash Pond (BAP) for some time. Figures D-1 (FAP Closure Activities) and D-2 (BAP Closure Activities) present Gantt charts depicting the tasks that must be completed as part of pond closure with the corresponding planned schedule for those tasks. This narrative supplements the Closure Plans presented as Attachment D(1) and presents supporting detail regarding the tasks and schedule identified in each Gantt chart.

1. Closure of the Fly Ash Pond

1.1 Pre-Construction

1.1.1 Minimize Discharge to the FAP

Continue implementing measures that limit discharges to the FAP; this activity has been ongoing since early 2016 and has included sale of fly ash to a local cement manufacturer, shut down of Unit 2 and Unit 4, diversion of water from seepage collection systems to general water (this flow previously discharged into the FAP), diversion of reject from the reverse osmosis water treatment system, and various plant operational modifications. This activity will continue thru plant shut down.

1.1.2 Stockpile Closed Ash Pond 1 CCR Material ~~for Bridge Lift~~

Move 767,000 cubic yards (cy) of ash from closed Ash Pond 1 to a stockpile area located within the Fly Ash Pond footprint and store for utilization as ~~bridge lift material~~ **fill and stabilization material** for closure activities. Work began in September 2020 and was completed in December 2021.

1.1.3 Stockpile Bottom Ash for Bridge Lift

Relocate approximately ~~6~~400,000 cy of bottom ash from the Bottom Ash Monofill (BAM) to a stockpile area located within the FAP footprint and store for utilization as bridge lift material for closure activities. Initiated development of a haul route and procurement package in 2022. This work ~~will can~~ started in **second quarter of 2023 and is anticipated to be complete by fourth quarter of 2024.**

1.1.4 Land Acquisition /**Access for Closure** (~~e.g. Diversion Channels~~)

No later than 3 years prior to starting closure activities, acquire land **(or access to land)** adjacent to the FAP for soil borrow areas ~~and construction of diversion channels~~. Investigation of borrow soil areas on APS property was conducted in 2022 to justify the need for offsite borrow areas. An ALTA survey supporting land acquisition was initiated in September 2022 and ~~is projected to be completed~~ in **second quarter of 2023**. **An agreement for access to land for soil borrow testing was completed in October 2023.**

1.1.5 Run-On Diversions and Coffers (Push Up) Dams

Upstream in the drainage channels, build small retention coffer dams to capture precipitation run on. This work ~~will~~ was completed in late 2022.

~~1.1.6 Excavate Abutment Diversion Channels and Stockpile Select Soil~~

~~Start the excavation of abutment diversion channels approximately one year prior to the cessation of discharge of CCR material (as early as Second Quarter 2024).~~

~~1.1.76 Fly Ash Pond Dewatering~~ **Enhanced Evaporation of Decant Water Area**

Design and construction of a mechanically enhanced evaporation system for increasing the rate of evaporation and accelerating drawdown of free water within the FAP occurred in 2022. Twelve units began operation in August 2022.

1.2 Engineering

1.2.1 Design Engineering

Start design engineering activities in 2023; these activities ~~will~~ include approximately 21 months of design engineering work. The objective of these activities is to produce design drawings and specifications that will be used to procure a contractor for FAP closure activities.

1.2.2 Geotechnical and Borrow Investigations/Bridge Lift Testing

~~Start the geotechnical soils evaluation after acquisition of lands adjacent to abutments. Identify usable soils for borrow materials. If possible, build roads onto the FAP beach for access of light-weight geotechnical test equipment.~~

~~1.2.3 Bridge Lift Test Fill~~

~~Start construction test fills over the CCR material exposed in the pond next to the dam embankment. Test fills to measure internal water pressures generated by bridge lift loading. Estimate techniques and materials needed to construct full-scale soil fill cap.~~

1.3 Permits

1.3.1 Arizona Department of Water Resources (ADWR) Dam Modifications

Anticipate that the permitting process with the ADWR Dam Safety Bureau to modify a jurisdictional high hazard dam will require nine months. Consult early with ADWR to identify if additional time is needed. Initiated discussions with ADWR regarding FAP closure in late 2022.

~~1.3.2 Arizona Department of Environmental Quality (ADEQ) or US Environmental Protection Agency (EPA) CCR Rule Closure Plan Approval~~

Anticipate up to six months will be required to achieve approval of proposed Closure Plan from ADEQ or US EPA **if a permit program is in place before construction begins** ~~ADEQ does not have primacy.~~

1.4 Procurement

1.4.1 Preliminary Construction Contracts

Anticipation of six months duration for procurement of the primary construction contract (includes bid event and award of contract).

1.5 Final Boiler Closures

1.5.1 Plant Final Boiler Closures

Cease generation using coal no later than April 2025.

1.6 Construction

1.6.1 ~~Gravity Drain Down CCR Pile~~ Dewatering of Drainable Pore Water

Install and test extraction wells completed in CCR. Initiate extraction well operations and optimize the extraction of drainable pore water for the interception and removal of pore water that contributes to seepage from the FAP. Allow up to 18 months to gravity drain the delta of CCR material adjacent to the dam. This activity may include pushing out of bridge lift material to help squeeze pore water from the CCR material. This task can begin following cessation of discharge of CCR material to the FAP.

1.6.2 ~~Complete Diversion Channel Rock Excavations~~

Complete diversion channels; rock excavations started in pre construction. Continue to segregate the selected materials for construction borrow material (activities started Second Quarter 2025).

1.6.23 Fill and Stabilize Remaining Water Ponds Areas with Rockfill from Diversion Channel Cuts

Backfill remaining free water at the upstream toe of CCR with rock fill material to entrap remaining free water stabilize soils in preparation for capping this activity should coincide with the excavation of the diversion channels. Utilize rock from diversion excavation.

1.6.4 ~~Build Rockfill Toe Buttress to Stabilize Upstream Toe of CCR Pile~~

Build the toe buttress with larger rock to stabilize the CCR material. This activity will coincide with the rockfill to trap the remaining free water. Can start Fourth Quarter of 2025.

1.6.35 Excavate Upstream Stormwater Basins Diversion Channels and Cofferdams

Finish eExcavating upstream basins to intercept and retain stormwater run-on. diversions to connect with the diversion channels around the abutments. Work starts Third Quarter of 2025 and requires 21 months.

1.6.46 Build Stormwater Detention Basins and Outlet Works

Construct Install a composite liner system in each upstream stormwater detention basins. These basin which will outfall into culverts that convey water under Interstate 40.

1.6.57 Build the ~~South and North Half Bridge Lifts and Construct Evapotranspiration (ET) Cap~~

Construct the bridge lifts and place the ET cap material over the supporting bridge lift material as area comes available. These construction activities will be split along the north and south halves of the pond, advancing the cap materials from southwest to northeast to squeeze pore water out of the CCR pile. ET cap placement will follow the bridge lift construction activities as areas become available. Work starts ~~Second~~ **First** Quarter 2027**6**.

1.6.68 Vegetate ET Cap

Seed the ET cap as sections are completed. Finish September or October 2028.

2. Closure of the Bottom Ash Pond

2.1 Pre-Construction

2.1.1 Land Acquisition for Closure (e.g. ~~Borrow Areas~~ **Diversion Channels)**

~~If needed~~ No later than 3 years prior to starting closure activities, acquire land adjacent to the BAP for soil borrow areas and construction of diversion channels. An ALTA survey supporting land acquisition was initiated in September 2022 and ~~is projected to be~~ **was** completed in **second quarter of 20223**.

2.1.2 Mine Out West Cell from BAP

Excavate bottom ash from the west cell of the BAP and relocate material to the BAM or the FAP for use as bridge lift material.

2.1.3 Divert Bottom Ash Discharge to West Cell

Modify BAP operations to discharge into the BAP west cell in preparation for dewatering of the northern area of the BAP.

2.1.4 Collect Samples from BAM Expansion Area and BAP Dam Shell

Collect samples to evaluate the condition of the BAM expansion area and determine whether the BAP dam shell material is suitable for use as an ET cap.

2.1.5 Dewater Northern Area of the BAP

Promote gravity drain down of the northern area of the BAP.

~~**2.1.2 Stop Mining of Bottom Ash from BAP (to Bottom Ash Monofill)**~~

~~Suspend removal of bottom ash from the BAP with placement of the ash in the BAM so that the material can be used in closure activities.~~

~~**2.1.3 Allow Sluice of Bottom Ash into Decant Area to fill with BA**~~

~~Allow ash from the plant to fill in the decant west and east cells in the BAP.~~

2.2 Engineering

2.2.1 Design Engineering

~~Design engineering activities starting in 2023 approximately 21 months of design engineering work.~~ Start design engineering activities in 2023; these activities will include approximately 18 months of design engineering work. The objective of these activities is to produce design drawings and specifications that will be used to procure a contractor for BAP closure activities.

2.2.2 Geotechnical and Borrow Investigations

~~Start the geotechnical soils evaluation after acquisition of lands adjacent to abutments. Identify usable soils for borrow materials. Build roads onto bottom ash beach areas to~~ for access of light-weight geotechnical test equipment.

2.3 Permits

2.3.1 ADWR Dam Modifications

Anticipate that the permitting process with the ADWR Dam Safety Bureau to breach modify a jurisdictional high hazard dam will require fifteen nine months. Consult early with ADWR to identify if additional time is needed.

2.3.2 ADEQ or US EPA CCR Rule Closure Plan Approval

Anticipate up to six months will be required to achieve approval of proposed Closure Plan from ADEQ or US EPA if a permit program is in place before construction begins ADEQ does not have primacy.

2.4 Procurement

2.4.1 Preliminary Construction Contracts

Anticipation of six months duration for procurement of the primary construction contract (includes bid event and award of contract).

2.5 Final Boiler Closures

2.5.1 Plant Final Boiler Closures

Cease generation using coal no later than April 2025.

2.6 Construction Activities

2.6.1 ~~Transfer~~ Remove Remaining Decant Water from BAP to General Sump for Use during Decommissioning

Siphon or pump extensively sending all free water possible to the plant for use in decommissioning activities or disposal.

2.6.2 Gravity Drain-Down CCR Pile

Allow up to 18 months to gravity drain the delta of CCR material. Activities may include the use of drainage ditches, vacuum wells, and/or pushing out of bridge lift material to help squeeze pore water from the CCR material. Starts with the cessation of discharge of CCR material.

2.6.3 Excavate CCR from the BAM Expansion Area

Remove dewatered bottom ash from the northern area of the BAM and place in the BAM. This activity is anticipated to begin before boiler shutdown but could be ongoing when boiler shutdown occurs.

2.6.4 Construct a BAM Expansion Landfill and Associated Stormwater Controls

Construct a lateral to the existing BAM landfill in the northern area of the BAP footprint after the CCR has been removed from this expansion area. The new lateral will be lined. After CCR has been sufficiently removed from area around the new lateral, construct stormwater control channels.

2.6.5 Build and Vegetate an ET Cap on BAM Expansion Landfill

After CCR excavated from the BAP has been placed in the new lateral, construct an ET cap on the new expansion area, likely using soil from breaching the dam. The ET cap will be seeded for soil stabilization as the cap is placed.

2.6.6 Excavate CCR from BAP and Place in BAM

As the BAP is dewatered, excavate CCR and place the material in the BAM and the new BAM expansion landfill. This effort is anticipated to take 27 months to complete.

2.6.7 Grade and Stabilize Soils in Footprint of Former BAP

After the CCR has been removed from the footprint of the former BAP, regrade the area, as necessary, to promote proper drainage. Seed the soils thereafter to promote soil stabilization. Finish no later than October 2028.

2.6.8 Breach the BAP Dam

When safe to do so, breach the BAP dam to remove this structure from the ADWR jurisdiction.

~~**2.6.3 Grade Pond Using Drained Bottom Ash**~~

~~Grade cut and fill utilizing drained bottom ash material to achieve the final surface configuration. This activity should start as soon as possible with the gravity drain down of the bottom ash material.~~

~~**2.6.4 Excavate Upstream Diversion Channels and Retention Pond**~~

~~Excavate upstream diversion channels to connect with the diversion channels around the abutments. Work will start First Quarter of 2026 and continue for 15 months.~~

~~**2.6.5 Build ET Cap Using Stockpiled Soil from Diversion Channel Cuts**~~

~~ET cap placement will follow the grade cut and fill construction activities as areas become available. Activities will start in Third Quarter of 2027.~~

~~**2.6.6 Vegetate ET Cap**~~

~~Seed the ET cap as sections are completed. Finish September or October 2028.~~

Figure D-1

Planned Schedule for FAP Closure Activities

Last Updated: 11.27.2023 (2023 Updates in Green Text)

NOTES:

- 1. Does not describe any removal of free water to Evaporation Pond or unlined basins
- 2. Does not describe any measures for enhancing drain-down or pore pressure relief within CCR pile.
- 3. For cap construction, a south/north distinction has been made to allow an extra year for dewatering drain-down of the more fine-grained northern half.

TASK	START	END	Duration	2020				2021				2022				2023				2024				2025				2026				2027				2028			
				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Pre-Construction																																							
Minimize discharge to FAP	20Q1	25Q2	63 months	[Blue bar spanning 20Q1 to 25Q2]																																			
Stockpile 767,000 cy existing fly ash for fill and stabilization material	20Q3	22Q1	18 months	[Blue bar spanning 20Q3 to 22Q1]																																			
Stockpile 400,000 cy of BAM BA for bridge lift material	23Q3	24Q4	15 months	[Blue bar spanning 23Q3 to 24Q4]																																			
Land acquisition/access for closure (e.g. borrow diversion channels)	23Q1	24Q2	15 months	[Blue bar spanning 23Q1 to 24Q2]																																			
Run-on control diversions and coffer (push-up) dams	22Q4	23Q1	3 months	[Blue bar spanning 22Q4 to 23Q1]																																			
Excavate abutment diversion channel, stockpile select soils				[Blue bar spanning 22Q2 to 25Q2]																																			
Enhanced evaporation of decant water (i.e., free water) area FAP dewatering	22Q2	25Q2	36 months	[Blue bar spanning 22Q2 to 25Q2]																																			
Engineering																																							
Design engineering (SG2)	23Q1	24Q4	21 months	[Red bar spanning 23Q1 to 24Q4]																																			
Geotechnical and borrow investigations/bridge lift testing	23Q1	24Q1	12 months	[Red bar spanning 23Q1 to 24Q1]																																			
Bridge lift test fill				[Red bar spanning 23Q1 to 24Q1]																																			
Permits																																							
ADWR dam modifications	23Q4	24Q3	9 months	[Green bar spanning 23Q4 to 24Q3]																																			
ADEQ/USEPA CCR closure plan approval (as applicable)	24Q2	24Q4	6 months	[Green bar spanning 24Q2 to 24Q4]																																			
Procurement																																							
Primary construction contract(s)	24Q3	25Q1	6 months	[Purple bar spanning 24Q3 to 25Q1]																																			
Final Boiler Closures																																							
Plant final boiler closures	25Q2	25Q2	0 months	[Orange bar at 25Q2] Coal Fired Boiler Shutdown																																			
Construction																																							
Dewatering of drainable pore water using extraction wells	23Q4	28Q4	60 months	[Yellow bar spanning 23Q4 to 28Q4]																																			
Gravity drain-down CCR pile				[Yellow bar spanning 23Q4 to 28Q4]																																			
Complete diversion channel rock excavations				[Yellow bar spanning 23Q4 to 28Q4]																																			
Fill and stabilize remaining water pond areas with rockfill from diversion channel cuts	25Q2	25Q4	6 months	[Yellow bar spanning 25Q2 to 25Q4]																																			
Build rockfill toe buttress to stabilize upstream toe of CCR pile				[Yellow bar spanning 25Q2 to 25Q4]																																			
Excavate upstream stormwater basins diversion channels and coffer dams	25Q3	27Q2	21 months	[Yellow bar spanning 25Q3 to 27Q2]																																			
Build stormwater detention basins and outlet works	27Q2	28Q2	12 months	[Yellow bar spanning 27Q2 to 28Q2]																																			
Build south half of bridge lift using stockpiled fly ash				[Yellow bar spanning 27Q2 to 27Q4]																																			
Build south half of ET cap using stockpiled soil from diversion cuts	27Q2	27Q4	6 months	[Yellow bar spanning 27Q2 to 27Q4]																																			
Build north half of bridge lift using stockpiled fly ash	27Q1	27Q4	9 months	[Yellow bar spanning 27Q1 to 27Q4]																																			
Build north half of ET cap using stockpiled soil from diversion channel cuts	27Q4	28Q3	9 months	[Yellow bar spanning 27Q4 to 28Q3]																																			
Vegetate ET cap	28Q3	28Q4	3 months	[Yellow bar spanning 28Q3 to 28Q4]																																			

Figure D-2

Planned Schedule for BAP Closure Activities

Last Updated: 11.27.2023 (2023 Updates in Green Text)

NOTES:

- 1. Does not describe any removal of free water to Evaporation Pond or unlined basins.
- 2. ~~Does not describe any measures for enhancing drain down or pore pressure relief within CCR pile.~~

TASK	START	END	Duration	2020				2021				2022				2023				2024				2025				2026				2027				2028				2029			
				1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
Pre-Construction																																											
Land acquisition for closure (e.g. borrow areas diversion channels), if needed	24Q2	25Q1	9 months																																								
Stop mining of bottom ash from BAP (to Bottom Ash Monofill)																																											
Allow sluice of bottom ash into decant area to fill with BA																																											
Mine out West Cell from BAP	23Q4	24Q2	6 months																																								
Divert bottom ash discharge to West Cell	24Q1	24Q2	3 months																																								
Sample the BAM expansion area footprint	23Q4	24Q3	9 months																																								
Sample the BAP dam shell materials for use as a closure cap (ET cover)	23Q4	24Q3	9 months																																								
Dewater northern area of the BAP	24Q1	25Q1	12 months																																								
Engineering																																											
Design engineering (SG2)	23Q2	24Q4	18 months																																								
Geotechnical and borrow investigations	23Q2	24Q2	12 months																																								
Permits																																											
ADWR dam modifications	24Q3	25Q4	15 months																																								
ADEQ/USEPA CCR closure plan approval (as applicable)	24Q2	24Q4	6 months																																								
Procurement																																											
Primary construction contract(s)	24Q2	25Q1	9 months																																								
Final Boiler Closures																																											
Plant final boiler closures	25Q2	25Q2	0 months																																								
Construction																																											
Remove Transfer remaining decant water from BAP to general sump for use during decommissioning	25Q2	26Q4	18 months																																								
Gravity drain-down CCR pile	25Q2	26Q4	18 months																																								
Grade pond using drained bottom ash																																											
Excavate upstream diversion channels and retention pond																																											
Excavate CCR from the BAM expansion area and place in the BAM	24Q3	25Q3	12 months																																								
Construct BAM expansion landfill (lateral to existing BAM)	25Q2	26Q2	12 months																																								
Construct stormwater control channels around BAM expansion landfill	27Q1	27Q3	6 months																																								
Build ET cap on BAM expansion landfill using soil from the dam breach using stockpiled soil from diversion channel cuts	28Q3	29Q2	9 months																																								
Vegetate ET cap on BAM expansion landfill	29Q2	29Q3	3 months																																								
Excavate CCR from BAP and place in the BAM	25Q2	27Q3	27 months																																								
Grade and stabilize soils in footprint of former BAP	27Q3	28Q3	12 months																																								
Breach the BAP dam	27Q4	28Q3	9 months																																								