

**PLANT McDONOUGH-ATKINSON
CCR SURFACE IMPOUNDMENTS
(CCR UNIT AP-2, COMBINED CCR UNIT AP-3/4)
COBB COUNTY, GEORGIA
PART A SECTION 8 – POST-CLOSURE CARE PLAN**

FOR



**Georgia
Power**

August 2022



Golder Associates Inc. – Member of WSP
5170 Peachtree Road
Building 100, Suite 300
Atlanta, GA 30341
(770) 496-1893



GOLDER
MEMBER OF WSP

Table of Contents

- 1.0 INTRODUCTION 1**
- 2.0 POST CLOSURE CARE PLAN 1**
 - 2.1 Facility Contact Information..... 1
 - 2.2 Post Closure Property Care 1
 - 2.3 Monitoring and Maintenance Activities 1
 - 2.3.1 Cover System Inspections 1
 - 2.3.2 Groundwater Monitoring System 2
 - 2.3.3 AP-2 and AP-3/4 Maintenance 2
 - 2.4 Planned Use of Property 3
 - 2.5 Post Closure Operations 4
- 3.0 POST-CLOSURE CARE PERIOD..... 7**
 - 3.1 Recordkeeping 8
- 4.0 FINANCIAL ASSURANCE 8**

INTRODUCTION

This Post-Closure Care Plan for Georgia Power's Plant McDonough AP-2 and AP-3/4 was prepared in accordance with the State of Georgia Solid Waste Management Rule 391-3-4-.10(9)(c)(5)(v) as well as 40 CFR Part §257, Subpart D and meets the requirements of 40 CFR §257.104.

AP-2 has undergone CCR removal in accordance with §257.102(c). AP-3 and the adjacent AP-4 are currently being consolidated and closed in place as Combined Unit AP-3/4 in accordance with §257.102(c) and §257.102(d), and no longer receive CCR. This plan will be used to guide the post-closure care for the closed AP-2 and Combined AP-3/4 Units.

POST CLOSURE CARE PLAN

Facility Contact Information

During the post-closure care period, the following person(s) or office can be contacted about the facility:

Georgia Power Company
Manager, Environmental Affairs
241 Ralph McGill Boulevard
Atlanta, GA 30308
404-506-6505
gpcenv@southernco.com

Post Closure Property Care

The owner/operator shall complete post closure care for the CCR unit which shall consist of at least:

- Maintaining the integrity and effectiveness of the final cover system, including making repairs to the final cover as necessary to correct the effects of settlement, subsidence, erosion, or other events, and preventing run-on and run-off from eroding or otherwise damaging the final cover; and
- Maintaining the groundwater monitoring system and monitoring the groundwater in accordance with the requirements of 40 CFR §257.90 through 40 CFR §257.98.

Monitoring and Maintenance Activities

Throughout the post-closure care period, the site shall be inspected to maintain the structural integrity of the cover system. Inspections will be completed to ensure that all CCR remain properly covered by the final cover system and stormwater control systems are maintained in proper working condition.

Any areas identified during inspections that require repair work shall be noted and scheduled for repairs as quickly as practical. Any repair work on the final cover system shall meet or exceed the design requirements.

Cover System Inspections

The AP-3/4 final cover and stormwater control systems will be periodically inspected to monitor the function and integrity of the systems. Inspections will be completed on a quarterly and annual basis with the final quarterly inspection each year also serving as the annual inspection (4 inspections per year) for the first five (5) years following closure completion. After the initial five years, inspection will be conducted on an annual basis (1 inspection per year) for the remainder of the post-closure care period. These routine inspections will be completed per the guidelines listed in Table 1. During each quarterly and annual inspection, the appropriate inspection checklists will be completed, and any areas in need of repair will be noted on the appropriate checklist, logged in

a repair log, and maintained in the facility operating records. As all CCR material has been removed from the AP-2 Unit, there is no regulated cover system at AP-2 and post closure cover system inspections of the AP-2 Unit are not required.

Table 1: Routine Inspections for AP-3/4

Frequency	Description
Quarterly and Annually for First 5 Years Post Closure	<ul style="list-style-type: none"> ■ Slow driving or walking inspection focusing on: <ul style="list-style-type: none"> ■ Obvious signs of damage ■ General performance of the cover system and associated structures ■ General housekeeping and site maintenance <p><i>Note: Quarterly Inspection tasks are to be completed during the annual inspection after five (5) years into the post-closure care period.</i></p>
Annually	<ul style="list-style-type: none"> ■ Detailed walking inspection of all areas of AP-3/4, including: <ul style="list-style-type: none"> ■ Cover systems - turf seams, anchor trenches, infill and armoring conditions, and vegetation where applicable ■ Stormwater systems – attenuation pond stabilization, discharge structures, berms, channels, and culverts ■ Slopes, berms, and roads ■ Monitoring wells and instrumentation ■ Site security and maintenance ■ Other structures or areas within the site boundary that may impact the integrity of the closed unit

Groundwater Monitoring System

The groundwater monitoring system required by 391-3-4-.10(6) as presented in the Groundwater Monitoring Plan will be maintained in accordance with the plan throughout the required post-closure care period, which is a minimum of 30 years. Any modifications to the monitoring system will be made in accordance with a GA EPD approved modification. Groundwater monitoring, as required by State of Georgia Solid Waste Management Rule 391-3-4-.10(6) as well as §257.90, will be performed on a semi-annual basis during the required post-closure care period. The multi-unit Groundwater Monitoring Plan for CCR Units AP-2 and AP-3/4 is presented in Part A Section 6 of this permit application.

AP-2 and AP-3/4 Maintenance

Following closure, maintenance and repairs will be provided on the final cover system for the required post-closure care period so that the integrity and effectiveness of the final cover system will be maintained. Maintenance activities will include, but not be limited to:

- Any needed repairs to the final cover system to correct damages related to settlement, subsidence, erosion, or other events, and will be performed to prevent run-off from eroding or otherwise damaging the final cover.
- Repair of erosion features

- Repairs to any observed synthetic cover system components damage
- Re-establishment of vegetation (where applicable)
- Repairs to accessible portions of pipe outfalls and underdrain collection systems
- Housekeeping and general upkeep of the closed Units

Regular maintenance will be performed on a semi-annual schedule, with more frequent maintenance performed if and as needed following the inspections performed by qualified personnel, summarized in Section 3.3.2.

Planned Use of Property

AP-2

AP-2 CCR removal activities concluded in Q3 2019 for closure by removal. Future development for AP-2 includes a proposed backfill of the excavated unit utilizing compacted, clean soil. Following backfilling of AP-2, additional proposed future development of AP-2 may include the following:

- Material lay down area for use during the closure and barrier wall construction of CCR Unit AP-1 (Closure Design and permit application submitted under separate cover)
- Material lay down area for use by facility operations personnel. All material temporarily stored will be evaluated to prevent damage or disturbance to any backfilled or vegetated area.
- Plant personnel recreational area
- Future temporary or overflow vehicle parking
- Future site infrastructure

It is noted that the limits of AP-2 include active plant transmission and other power plant infrastructure that will be maintained and may require repairs and replacement of materials including installation of temporary and permanent support infrastructure.

Any future use of the property after closure will consider maintaining the functionality of the groundwater monitoring system.

AP-3/4

Portions of the closed unit are proposed to be used for temporary storage or staging of maintenance or replacement materials for the Unit such as additional infill, turf, liner, rock, and other materials. It is noted that the limits of AP-3/4 include an active natural gas pipeline, active plant transmission, water treatment, and other power plant infrastructure that will be maintained and may require repairs and replacement of materials including installation of temporary and permanent support infrastructure. Any temporary or permanent modifications to the Unit after closure will be planned and engineered so as to not disturb the integrity of the final cover or other components of the containment system. Furthermore, the functionality of the groundwater monitoring system will be maintained.

AP-3/4 Solar Development

As part of Georgia Power's continued commitment to renewable energy generation, GPC is proposing to install a solar development on top of the closed AP-3/4 CCR unit. At present, there is an existing pilot solar installation at the southwest slope of AP-3/4 which utilizes the non-penetrating polyethylene friction strips and rail system. It is

anticipated that this pilot solar installation will remain through permit issuance until sufficient data has been collected and Georgia Power decides to remove the system. Care will be taken so as not to disturb the integrity of the final cover system during pilot solar installation removal. Equipment used for pilot solar installation removal will follow applicable guidelines for trafficking over ClosureTurf when accessing the areas outside of the designed and constructed access roads. Work limits, unit access points, and laydown areas will be managed to minimize impacts to the final cover system. No impacts to the final cover system are anticipated, however any unanticipated impacts to the final cover system will be addressed in accordance with the Construction Quality Assurance (CQA) Plan.

Georgia Power is also proposing two options for future solar development in post-closure care. The layouts and configuration details of the proposed options are presented in Closure Drawings Sheets 36A, 36B, 36C, 36D and 36E. The non-penetrating solar installation will not disturb the integrity of the final cover system or other components of the containment system or groundwater monitoring system. The proposed options for future solar development include a non-penetrating ballasted anchor system (Option 1) and a non-penetrating polyethylene friction strips and rail system (Option 2). Engineering evaluations of the proposed solar developments are provided in Part B Section 5 – Post-Closure Solar Development. This report includes evaluation of global stability, veneer stability, potential settlement, and the initial evaluation of effects on drainage.

Solar development will include construction of solar panels, racking system, and other electric infrastructure to tie into the existing transmission service at Plant McDonough. Construction, installations, work limits, unit access points, laydown areas, and vehicle restrictions will be planned and managed to minimize impacts to the final covers system. The solar development installation activities are not designed to penetrate or disturb the final cover system. No impacts to the final cover system are anticipated, however any unanticipated impacts to the final cover system will be addressed in accordance with the CQA Plan. Georgia Power will provide to GA EPD an estimated timeline for repair as well as a certification describing the repair and/or restoration steps taken.

No later than 60 days following the completion of the solar development installation, Georgia Power will submit a construction certification report. The construction certification report will include as-built drawings and certification by a qualified professional engineer registered in Georgia verifying that the installation of the solar development has been completed in accordance with the permit. The solar development is planned to remain through the post-closure care period. However, should the system have a lifetime shorter than the 30-year post-closure care period, a restoration plan will be submitted to GA EPD for approval.

Post Closure Operations

Plant operations and maintenance will occur within the permit boundary. Activities not directly affecting the CCR consolidation or final cover system, such as those needed to construct, maintain, replace or repair systems for electric power generation or its delivery (such as subsurface piping, electrical appurtenances, transmission structures, etc.) may be conducted at the Permittee's discretion.

Operation and maintenance of transmission and/or distribution structures within the limits of the CCR consolidation area as engineered and permitted not directly affecting the CCR consolidation or final cover system, may also be conducted at the Permittee's discretion.

However, should utility operations be required such that the final cover system is required to be disturbed, notification shall be provided to the Director of EPD that the demonstration of any disturbance to the final cover, liner, or other component of the containment system including any removal of CCR, will not increase the potential threat to human health or the environment, and a report documenting the repair of the final cover system will be

placed in the facility operating record. The repair documentation will include as-builts, CQA information, and certification from a professional engineer licensed to practice in Georgia.

Activities related to ongoing operations at AP-2 and AP-3/4 within the AP-2 and AP-3/4 permit boundary may include but are not limited to those listed below.

Water Treatment

Contact water collected from the onsite CCR Units from temporary AEM wells, under-slope drainage systems, and other potential sources will be conveyed to the proposed on-site water treatment facility located south of the AP-3/4 closure system. Contact water will be treated for discharge per the facility's dewatering plan during closure, contact water management as outlined in the Engineering Report presented in Section B of this permit application, and the facility's active NPDES permit (Permit No. GA0001431).

Piezometers, Temporary AEM Wells, and Instrumentation

Instrumentation for the AP-3/4 closure consists of piezometers for water level documentation and inclinometers monitoring potential movement of the eastern slope of AP-3/4, as well as temporary AEM wells used to accelerate lowering of the groundwater table. The site instrumentation will be routinely inspected and maintenance will be performed as needed per the facility's instrumentation guidance. Instrumentation associated with AP-3/4 is also presented on the Contact Water Management and Instrumentation Plan presented in the AP-3/4 Closure Plans in Part A of this permit application.

The instrumentation detailed in Tables 2 and 3 below consists of the system to monitor the potentiometric surface of AP-3/4. The temporary AEM wells listed (AE-1 through AE-7, EW-D1 through EW-D4, and the MTW series) are part of the AEM that will operate during the beginning of post-closure care, for which post-closure instrumentation monitoring will consist of water level monitoring of individual wells and flow monitoring of the temporary AEM wells. The vibrating wire piezometers P-1 through P-7 in Table 3 are located at the eastern slope of the AP-3/4 extents, and measure water levels within AP-3/4.

Table 2: Temporary AEM Wells at AP-3/4 (inside Limits of CCR)

Well ID	Northing	Easting	Final Cover Elevation	CCR Bottom Elevation
AE-1	N 1392341.02	E 2201937.56	866.25	813.96
AE-2	N 1392425.09	E 2202394.37	849.51	809.00
AE-3	N 1392480.81	E 2202485.19	849.64	804.00
AE-4	N 1392615.15	E 2202535.08	851.64	812.82
AE-5	N 1393698.42	E 2203349.94	799.10	768.91
AE-6	N 1393774.77	E 2203285.37	802.09	772.93
AE-7	N 1393870.41	E 220323.23	799.36	776.00
MTW-E-1	N 1393621.42	E 2203413.75	796.07	768.14
MTW-E-2	N 1393545.62	E 2203478.43	793.08	767.15
MTW-E-3	N 1393470.11	E 2203542.33	790.10	767.97
MTW-E-4	N 1393394.31	E 2203605.76	787.14	769.36

Well ID	Northing	Easting	Final Cover Elevation	CCR Bottom Elevation
MTW-W-1	N 1393434.59	E 2203197.02	835.63	782.47
MTW-W-2	N 1393361.21	E 2203264.23	835.14	782.19
MTW-W-3	N 1393284.30	E 2203326.82	835.24	782.45
MTW-W-4	N 1393210.43	E 2203394.77	832.88	782.57
MTW-09	N 1393509.07	E 2203135.02	855.54	783.80
MTW-10	N 1393584.94	E 2203070.63	858.55	786.67
MTW-11	N 1393669.74	E 2203012.52	858.85	789.77
MTW-12	N 1393760.85	E 2202972.12	855.88	793.21
MTW-13	N 1393849.67	E 2202904.13	851.94	797.13
MTW-14	N 1393847.65	E 2202807.92	849.00	801.27
MTW-15	N 1393871.00	E 2203082.00	826.35	790.45

Table 3: Temporary AEM Wells at AP-3/4 (Outside of Limits of CCR)

Well ID	Northing	Easting	Ground Surface Elevation at Concrete Pad (ft NAVD 88)
EW-D1	N 1394309.50	E 2203002.80	786.78
EW-D2	N 1394375.80	E 2203307.10	788.23
EW-D3	N 1394363.70	E 2203753.50	817.23
EW-D4	N 1394045.50	E 2204171.70	820.42

Table 4: Vibrating Wire Piezometers (VWPs) for Post-Closure Performance Monitoring at AP-3/4

Instrument	Northing	Easting	Final Cover Elevation	CCR Bottom Elevation	Instrument Elevation
P-1	N 1393246.23	E 2203551.40	813.48	778.77	--
VWP-1					759
VWP-2					794
VWP-3					779
P-2	N 1393352.62	E 2203644.86	785.10	770.30	--
VWP-1					759.1
VWP-2					781.6

Instrument	Northing	Easting	Final Cover Elevation	CCR Bottom Elevation	Instrument Elevation
P-3	N 1393495.32	E 2203339.93	823.15	776.46	--
VWP-1					803.1
VWP-2					769.6
VWP-3					780.6
P-4	N 1393586.48	E 2203447.58	794.80	767.28	--
VWP-1					773.7
VWP-2					750.7
P-5	N 1393778.83	E 2203125.65	829.49	785.29	--
VWP-1					775.4
VWP-2					785.4
VWP-3					815.4
P-6	N 1393855.85	E 2203244.98	800.58	775.08	--
VWP-1					780.9
VWP-2					762.9
P-7	N 1393847.28	E 2202694.98	845.70	806.29	--
VWP-1					803.5
VWP-2					782.7

Solar Development

At the time of closure, there is an existing WatershedGeo PowerCap solar pilot installation, and there is a proposed larger scale solar development to be installed on AP-3/4 as described in Section 2.4. Decommissioning of the PowerCap solar pilot installation will include removal of the solar array, rails, and friction strips. The operation and removal of the pilot and larger scale solar development systems do not require penetration of any component of the ClosureTurf cover system. As indicated in Section 2.4, any unanticipated impacts to the final cover system will be addressed in accordance with the CQA Plan.

POST-CLOSURE CARE PERIOD

In accordance with State Rule 391-3-4-.10(9)(c)(5)(v), 40 CFR §257.104(c), and the facility's groundwater monitoring plan, Georgia Power will conduct post-closure care during the post-closure care period of at least 30 years for AP-3/4. If, at the end of the 30-year post-closure care period, groundwater at AP-3/4 is being monitored

under the assessment monitoring program in accordance with 40 CFR §257.95, Georgia Power must continue to conduct post-closure care until AP-3/4 returns to detection monitoring in accordance with 40 CFR §257.95.

This Post-Closure Care Plan may be amended in accordance with the requirements of State Rule 391-3-4-.10(7)(g).

As per 40 CFR §257.104(a), AP-2 is not subject to post closure care criteria following the time at which the unit meets the requirements of §257.102(c) and is released from requirements as approved by EPD.

If at the end of the post-closure care period the CCR unit is operating under detection monitoring in accordance with §257.94, Georgia Power must submit a demonstration certified by a Qualified Groundwater Scientist to EPD for approval demonstrating that the facility has returned to detection monitoring. Evaluation criteria may include but are not limited to additional sampling, analysis, calculations, and/or modeling to demonstrate compliance with 391-3-4.10 as determined by the Qualified Groundwater Scientist and approved by EPD.

Recordkeeping

The owner/operator shall comply with all closure and post-closure care recordkeeping requirements of State of Georgia Solid Waste Management Rule 391-3-4-.10(9)(c)(5)(vi).

No later than 60 days following completion of the post-closure care period of 30 years, and provided the provisions of §257.104(c)(2) don't apply, Georgia Power Company will prepare a notification verifying completion of the post-closure care.

Documentation for Plant McDonough AP-2 and AP-3/4 operating record are located electronically at the website titled "Plant McDonough CCR Rule Compliance Information" located at the Georgia Power Company website under Environmental Compliance.

FINANCIAL ASSURANCE

In compliance with applicable securities laws and regulations, GPC will provide cost estimates for post-closure care to GA EPD under separate cover. The post-closure care costs will include all items necessary for a third-party to conduct post-closure care maintenance and monitoring in accordance with the Post-Closure Plan as set forth herein. The cost estimate will be generated in current dollars and adjusted annually for inflation. GPC will provide a demonstration of financial assurance upon approval of the closure and post-closure care cost estimates by GA EPD.