TEXAS COMMISSION ON ENVIRONMENTAL QUALITY



Registration for Industrial Solid Waste Management Facility Issued Under Provisions of Texas Health and Safety Code ANN. Chapter 361 and Chapter 5 of the Texas Water Code

CCR Registration No.: CCR101

Facility Operator: Lower Colorado River Authority

6549 Power Plant Road La Grange, Texas 78945

Facility Owner: Lower Colorado River Authority

6549 Power Plant Road La Grange, Texas 78945

Facility Name: LCRA Sam Seymour Fayette Power Project

6549 Power Plant Road La Grange, Texas 78945

The registrant is authorized to operate, construct and/or expand a Coal Combustion Residuals (CCR) unit to dispose of and/or manage CCR generated from the combustion of coal at electric utilities and independent power producers in accordance with the limitations, requirements, and other conditions set forth herein. This registration is granted subject to the rules and Orders of the Commission and laws of the State of Texas. Nothing in this registration exempts the registrant from compliance with other applicable rules and regulations of the Texas Commission on Environmental Quality (TCEQ). This registration will be valid until canceled, amended, or revoked by the Commission.

Approved, Issued and *Effective* in accordance with Title 30 Texas Administrative Code (30 TAC) Chapter 352.

Issued Date: July 10, 2025

For the Commission

KKeel

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I. Facility Description

A. Location of Facility

The Registration is issued to Lower Colorado River Authority (LCRA, hereafter called the registrant) to operate and expand a CCR Unit located at 6549 Power Plant Road, in La Grange, Fayette County, Texas.

Coordinates:

Latitude: 29.914742

Longitude: -96.753535

Attachment A "Registration Boundary and CCR Unit Map" and supporting documents are contained in the registration application and are incorporated by reference in Section I.B. of this registration.

B. Incorporated Application Materials

This registration is based on, and the registrant shall follow the registration application submittals chronicled in Attachment B "Registration Application Revision Chronology" of this registration. These application materials are incorporated into this registration by reference as if fully set out herein. Any and all revisions to this registration shall become conditions of the registration upon the date of approval by the Commission.

II. Authorized CCR Waste Management.

A. Waste Management Unit(s)

The registrant is authorized to manage or dispose of CCR waste in registered unit(s) listed in Table I.6. - "CCR Units." Unit(s) shall include associated structures, appurtenances, or improvements as described in the registration application.

A Facility may consist of one or several CCR unit(s) as defined in Title 40 Code of Federal Regulations (CFR), Part 257, Section (§)257.53 and adopted in 30 TAC, Chapter 352, §352.3.

B. Changes, Additions, or Expansions

Any proposed CCR waste management unit change must be authorized in accordance with TCEQ rules in 30 TAC Chapter 352 (Coal Combustion Residuals Waste Management) and 30 TAC Chapter 305 (Consolidated Permits). Changes to an existing registration will be classified and processed as minor or major amendments in accordance with 30 TAC §352.131.

III. Design, Construction, and Operation

A. CCR waste management unit design, construction, and operation must comply with this registration, the regulations in 30 TAC Chapter 352, and the registration

- application and application revisions as incorporated by reference in Section I.B. of this registration.
- **B.** CCR units shall be designed, constructed, operated, and maintained to prevent the release and migration of any waste, contaminant, or pollutant, and to prevent discharge to or inundation of the areas surrounding the units.
- C. As applicable, the registrant shall comply with groundwater monitoring and corrective action requirements in accordance with 40 CFR §257.91 through 40 CFR §257.98 and 30 TAC Chapter 352 Subchapter H.

IV. Financial Assurance

- **A.** Authorization to operate the Facility is contingent upon compliance with provisions contained within this registration and maintenance of financial assurance in accordance with 30 TAC Chapter 352, Subchapter I and 30 TAC Chapter 37, Subchapters A D.
- **B.** Within 90 days after the executive director's approval of the registration, a financial assurance mechanism acceptable to the executive director must be established and submitted to the executive director in current dollars in an amount not less than \$2,013,815, 2021 dollars, as shown on Table VIII.A.1, to perform post-closure care maintenance pursuant to 30 TAC §352.1101 and 30 TAC §352.1241.
- C. Whenever the current cost estimate increases to an amount greater than the amount being provided in the financial assurance mechanism(s), the owner and/or operator shall increase the dollar amount of the financial assurance within 60 days in accordance with 30 TAC §37.141. Continuous financial assurance coverage must be provided in accordance with 30 TAC Chapter 352, Subchapter I, until all requirements of the post-closure care have been completed, and the Facility is released from post-closure care obligations.
- **D.** Financial assurance for post-closure care cost, including any adjustments after registration issuance, shall be corrected for inflation during the active life of the Facility according to the methods described by 30 TAC Sections §§37.131 and 37.141.

V. CCR Unit Closure, Retrofit and Post-Closure Care

Closure, retrofit and post-closure care of CCR units are required to comply with the requirements of 40 CFR Part 257, Subpart D and 30 TAC Chapter 352, as applicable.

A. CCR Unit Closure Shall Commence:

- 1. Upon direction of the TCEQ for violations of this registration or violations terms or violation of State or Federal regulations;
- 2. Upon the issuance of an emergency order to the registrant in accordance with applicable requirements of 30 TAC 305 Subchapter B or 30 TAC §§305.21 and 305.29, and §§5.501 and 5.512 of the Texas Water Code;
- 3. Upon abandonment of the unit or Facility by the registrant; or
- 4. Upon registrant's notification to the TCEQ.

B. Completion Requirements:

CCR unit closure, retrofit and post-closure care activities shall be conducted and completed in accordance with the registration application submittals as incorporated by reference in Section I.B. of this registration and the applicable State and Federal regulations in 40 CFR Part 257, Subpart D and 30 TAC Chapter 352.

For any changes to closure and post-closure plans, the registrant shall submit a written request for an amendment to authorize changes in accordance with 30 TAC §352.131. The written request shall include a copy of the amended closure and /or post-closure plan(s) for review and approval by the executive director prior to initiating closure and post-closure care activities.

VI. Standard Registration Conditions

- **A.** This registration is based on the initial registration application submittal and subsequent revisions, amendments, corrections, and changes dated as referenced in Section I.B. of this registration. These application submittals are hereby approved subject to the terms of this registration, any orders of the TCEQ, and are incorporated into this registration by reference as if fully set out herein. Any and all revisions to these elements shall become conditions of this registration upon the date of approval by the Commission. The registrant shall comply with the registration application submittals, maintain the Application and all supporting documentation at the facility (operating record) and make them available for inspection by TCEQ personnel.
- **B.** Failure to comply with any registration condition may constitute a violation of the registration, the rules of the Commission, and the Texas Solid Waste Disposal Act and is grounds for an enforcement action, for registration amendment, revocation, or suspension.
- C. After construction of a new or laterally expanding CCR unit, and prior to accepting waste, the registrant is required to obtain and submit to the executive director a preopening certification by a qualified Texas-licensed Professional Engineer that the unit complies with the registration conditions. The registrant shall contact the executive director and region office in writing and request a pre-opening inspection pursuant to 30 TAC §352.851.
 - If the executive director has inspected the amended or newly constructed CCR unit(s) and finds it is in compliance with the conditions of the registration; or if within fifteen (15) days of submission of the written request for a pre-opening inspection, the registrant has not received notice from the executive director of the intent to inspect, waiving prior inspection; then the registrant may commence operation or acceptance of waste.
- **D.** Entry onto the facility by authorized TCEQ personnel for the purpose of CCR unit inspection shall be allowed.
- E. The provisions of this registration are severable. If any registration provision or the application of any registration provision to any circumstance is held invalid, the remainder of this registration shall not be affected.
- **F.** Regardless of the specific designs contained in the registration application or adopted by reference in Section I.B. of this registration, the registrant shall be required to meet all performance standards in the registration, the application, or as required by local, State, and Federal laws or ordinances.

- **G.** If differences arise between these registration provisions and the Application, these registration provisions shall prevail.
- **H.** A CCR registration may be issued for the unit's entire active life and post-closure care period but may be revoked or amended at any time if the owner or operator fails to meet the standards established in 30 TAC Chapter 352.
- **I.** As applicable, the registrant shall comply with recordkeeping, notification and posting of information to the internet pursuant 30 TAC Chapter 352 Subchapter K.

VII. Incorporated Regulatory Requirements

- **A.** The registrant shall comply with all applicable Federal, State, and local regulations and shall obtain any and all other required permits prior to the beginning of any Facility improvements or operations authorized by this registration.
- **B.** To the extent applicable to the activities authorized by this registration, the requirements of 30 TAC Chapters 37, 39, 111, 116, 305, and 352; 40 CFR Part 257, Subparts A and D; statutory obligations of the Texas Water Code are hereby made provisions and conditions of this registration.

VIII. Special Provisions

None

Table I.6. - CCR Units

CCR Unit No.1	Unit Name	N.O.R. No. ¹	Unit Description ³	Capacity	Unit Status²
CCR-1	Combustion Byproduct Landfill (CBL)	013	Cells 1 and 2D	2,400,000 cu yds	Active
CCR-1	Combustion Byproduct Landfill (CBL)	013	Cells 2A, 2B, 2C, and 3A, 3B, 3C	10,000,000 cu yds	Proposed

Registered Unit No. and N.O.R. No. cannot be reassigned to new units or used more than once.

Unit Status options: Active, Closed, Inactive (built but not managing waste), Proposed (not yet built), Never Built, Transferred, Post-Closure.

³ If a unit has been transferred, the applicant should indicate which facility/permit it has been transferred to in the Unit Description column.

Table I.6.A. - Waste Management Information

Waste No.1	Waste Type(s)	Source
1	Fly Ash Unit 1 and 2	Generated from coal
		combustion process at FPP
2	Fly Ash Unit 3	Generated from coal
		combustion process at FPP
3	Bottom Ash Unit 1 and 2	Generated from coal
	_	combustion process at FPP
4	Bottom Ash Unit 3	Generated from coal
		combustion process at FPP
5	Synthetic Gypsum	Generated from coal
	D 0	combustion process at FPP
6	Refractory,	Generated from coal
	bowl mill rejects,	combustion process at FPP
	waste sand filter media,	
	waste charcoal filter	
	media, waste resin beads,	
	ash bag house filters,	
	pyrite and coal reject	
	generated from	
	maintenance operations	
7	Activated carbon waste	Generated from coal
	Activated carbon waste	combustion process at FPP
8	ACI Pipe cleaning waste	Generated from coal
	Treating waste	combustion process at FPP
	Fly Ash Unit 1 and 2	Generated from coal
	, , , , , , , , , , , , , , , , , , , ,	combustion process at FPP
		•
	non acquentially. Do not remove year	

Assign waste number sequentially. Do not remove waste number of wastes which are no longer generated.

Table IV.A. - Landfills Characteristics

Registered Unit No.*	Landfill	N.O.R. No.	Waste Nos.¹	Rated Capacity	Dimensions ²	Distance from lowest liner to groundwater	Action Leakage Rate (if required)
CCR-1	CBL	013	1 - 8	2,400,000 cu yds (active) 10,000,000 cu yds (proposed)	Area 123 acres; Length 2,829 ft; Width 1,932 ft; Depth 360 MSL; Max. elevation 470 ft MSL ³	Greater than 5 ft ⁴	NA

¹ From Table I.6.A., first column

² Dimensions should be provided as average length, width and depth, also include the surface acreage for the unit. ³Elevation approved by TCEQ by letter dated June 12, 2013

⁴ Cell 1 and Subcell 2D are existing cells; 40 CFR §257.60 is not applicable. Cells 2 (A-C) and Cell 3 will be sited in accordance with 40 CFR §257.60.

^{*} from Table I.6, first column

Table IV.B. - Landfill Liner System

Registered Unit No [*]	Landfill	Geomembrane Liner Material	Geomembrane Liner Permeability (cm/sec)	Geomembrane Liner Thickness	Soil Liner Material	Soil Liner Permeability (cm/sec)	Soil Liner Thickness
CCR-1	Cell 1 ¹	NA	NA	NA	Compacted Clay	< 1x10 ⁻⁷	12 inches of recompacted clay over > 3 ft of in-situ clay
CCR-1	Cell 2D²	NA	NA	NA	Compacted Clay	< 1x10 ⁻⁷	3 ft recompacted day plus 2 ft of a protective cover
CCR-1	Cell 2 (A-C) ³	Textured high density polyethylene (HDPE)	1 x10 ⁻¹⁵	60 mil	Compacted Soil Liner	< 1x10 ⁻⁷	2 ft
CCR-1	Cell 3 (A-C) ³	Textured HDPE	1 x10 ⁻¹⁵	60 mil	Compacted Soil Liner	< 1x10 ⁻⁷	2 ft

¹ Existing landfill cell constructed in 1988. Design approved by TCEQ in a letter dated January 18, 1988, in accordance with TCEQ Technical Guidance Document #3- Landfills.

² Existing landfill cell constructed in 2014. Design approved by TCEQ in a letter dated June 14, 2012, in accordance with TCEQ Technical Guidance Document #3- Landfills.

³ Construction of Cells 2 A-C and Cell 3 will be in accordance with 30 TAC 352 and 40 CFR 257 as described in the Composite Liner Design and Operating Criteria Report. No schedule for development of these cells at the time of application Submittal.

^{*} This number should match the Registered Unit No. given on Table IV.A.

Table IV.C. - Landfill Leachate Collection System

Registered Unit No.*	Landfill Name	Drainage Media	Collection Pipes (including risers)	Filter Fabric	Geofabric	Sump Material
CCR-1	Cell 1 ¹	NA	NA	NA	NA	NA
CCR-1	Cell 2D ²	NA	NA	NA	NA	NA
CCR-1	Cell 2 (A-C) ³	NA (no granular drainage)	6-inch diameter standard dimension ratio (SDR) high density polyethylene (HDPE) pipe	8-oz/yd² nonwoven geotextiles around chimney drain gravel and associated HDPE pipe	Double-sided (geotextilegeonet- geotextile) geocomposite drainage layer	NA (leachate gravity drains to a pond)
CCR-1	Cell 3 (A-C) ³	NA (no granular drainage)	6-inch diameter standard dimension ratio (SDR) high density polyethylene (HDPE) pipe	8-oz/yd² nonwoven geotextiles around chimney drain gravel and associated HDPE pipe	Double-sided (geotextilegeonet- geotextile) geocomposite drainage layer	NA (leachate gravity drains to a pond)

¹Existing landfill cell constructed in 1988. Design approved by TCEQ in a letter dated January 18, 1988, in accordance with TCEQ Technical Guidance Document #3- Landfills.

² Existing landfill cell constructed in 2014. Design approved by TCEQ in a letter dated June 14, 2012, in accordance with TCEQ Technical Guidance Document #3- Landfills.

³ Construction of Cells 2 A-C and Cell 3 will be in accordance with 30 TAC 352 and 40 CFR 257 as described in the Composite Liner Design and Operating Criteria Report included (Attachment 7). No schedule for development of these cells at the time of application.

^{*} This number should match the Registered Unit No. given on Table IV.A.

Table VI.A. - Unit Groundwater Detection Monitoring Systems

Waste Management Unit/Area Name¹ CCR-1/ Combustion Byproduct Landfill						
Well Number(s)³:	CBL340I	CBL301I	CBL302I	CBL306I	CBL308I	CBL341I
Hydrogeologic Unit Monitored	Intermediate Sand	Intermediate Sand	Intermediate Sand	Intermediate Sand	Intermediate Sand	Intermediate Sand
Type (e.g., point of compliance, background, observation, etc.) ²	NA	NA	NA	NA	NA	NA
Up or Down Gradient	Up	Down	Down	Down	Down	Down
Casing Diameter and Material	2" PVC					
Screen Diameter and Material	2" PVC					
Screen Slot Size (in.)	0,01	0,01	0,01	0,01	0,01	0,01
Top of Casing Elevation (Ft, Mean Sea Level [MSL])	376.98	372.11	358.99	339.96	368.67	366.65
Grade or Surface Elevation (Ft, MSL)	374.69	369.75	355.99	337.93	364.93	364.03
Well Depth (Ft, Below Grade Surface [BGS])	37	51	24	12.5	32	43
Well Depth (Ft, Below Top of Casing [BTOC])	39.3	53.4	27	14.5	35.7	45.6
Screen Interval From (Ft, BGS) To (Ft, BGS)	22-37	41-51	14-24	7.5-12.5	22-32	33-43
Screen Interval From (Ft, BTOC) To (Ft, BTOC)	24-39.3	43.4-53.4	17-27	9.53-14.53	25.7-35.7	35.6-45.6

¹ From Tables in Section I.; MSL: Mean Sea Level; BGS: Below Grade Surface; BTOC: Below Top of Casing ²Terms are not defined or used in 40 CFR 257, 30 TAC 352, or TCEQ Technical Guidance Document #32 ³The following well numbers CBL344I, CBL345I, CBL346I, CBL347I are proposed and located in the proposed landfill lateral expansion.

Table VI.C-1. - Groundwater Detection Monitoring Parameters

Name of CCR Unit	Combustion Byproduct Landfill			
Registered CCR Unit No.	CCR-1			
Parameters	Sampling Frequency	Analytical Method	Practical Quantification Limit² (units)	Concentration Limit ^{3,4,5} (units)
Boron	Semi-annual	SW3010A, Metals Prep SW 6010B ICPAES	0.0500 mg/l	See note ¹
Calcium	Semi-annual	SW3010A, Metals Prep SW 6010B ICPAES	0.200 mg/l	See note ¹
Chloride	Semi-annual	E300.0 Anions	1 mg/l	See note 1
Fluoride	Semi-annual	E300.0 Anions	0.0100 mg/l	See note 1
рН	Semi-annual	Field pH SM 4500H +B TCEQ Vol.1	NA	See note ¹
Sulfate	Semi-annual	E300.0 Anions	1 mg/l	See note 1
Total Dissolved Solids	Semi-annual	SM 2540C	250.0 mg/l	See note 1

¹ In accordance with 30 TAC §352.914 which adopts 40 CFR §257.94, groundwater concentrations of the listed constituents are analyzed using statistical analyses, specifically, 30 TAC §352.914(b) discusses actions triggered by a statistically significant increase for Appendix III constituents

⁵If there is a determination of a statistically significant increase over the background value for any Appendix III constituent adopted by reference in 30 TAC §352.1421 at any monitoring well, and If the owner or operator does not make an alternative source demonstration under 30 TAC §352.941 satisfactory to the executive director, then the owner or operator shall initiate an assessment monitoring program as required in 40 CFR §257.94(e). If the owner or operator does make an alternative source demonstration under 30 TAC §352.941 that is satisfactory to the executive director, then the owner or operator may continue to monitor in accordance with the detection monitoring program established under 30 TAC §352.941.

²LCRA Environmental Laboratory Services reports the Minimum Reporting Limit instead of PQL.

³The statistical analysis method can be found in Attachment 13 – Statistical Analysis of the registration application.

⁴The concentration limit is the basis for determining whether a release has occurred from the CCR unit/area. Updates to the concentration limits must be reviewed and approved by TCEQ before they can be used during a subsequent monitoring event.

Table VII.A.1. - Unit Closure

For each unit to be registered, list the unit components to be decontaminated, the possible methods of decontamination, and the possible methods of disposal of wastes and waste residues generated during unit closure.

residues generated during unit		
Equipment or CCR Unit	Possible Methods of Decontamination ¹	Possible Methods of Disposal ¹
CCR-1	NA	Closure in place
		T

¹ Applicants may list more than one appropriate method.

Table VIII.A.1. - Post-Closure Cost Summary for Existing Registered Units

Unit	Cost
CCR-1; Cells 1 and 2D	\$2,013,815
Total Existing Unit Post-Closure Cost Estimate	\$2,013,815 (in 2021 Dollar) ¹

Table VIII.A.2. - Post-Closure Cost Summary for Proposed Registered Units

Unit	Cost
CCR-1; Cells 2A, 2B, 2C, and 3A, 3B, 3C	\$610,080
Total Proposed Unit Post-Closure Cost Estimate	\$610,080 (in 2021 Dollar)

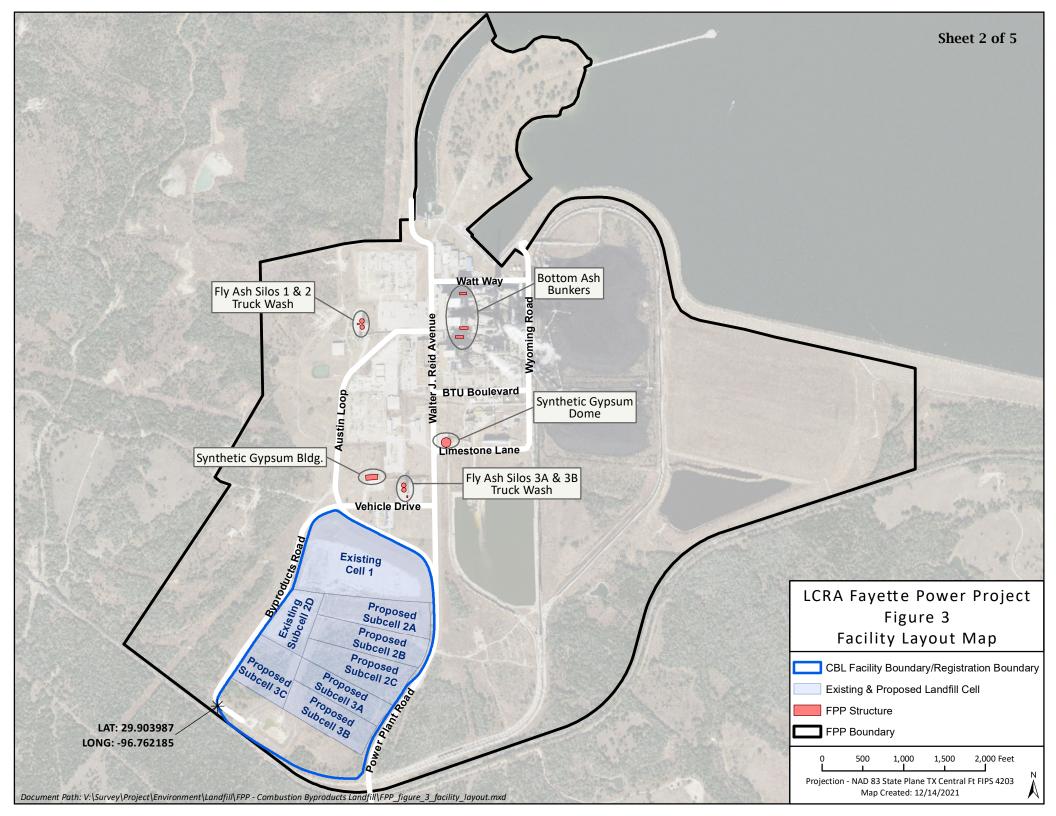
¹ As units are added or deleted from these tables through future registration amendments, the remaining itemized unit costs should be updated for inflation when re-calculating the revised total cost in current dollars.

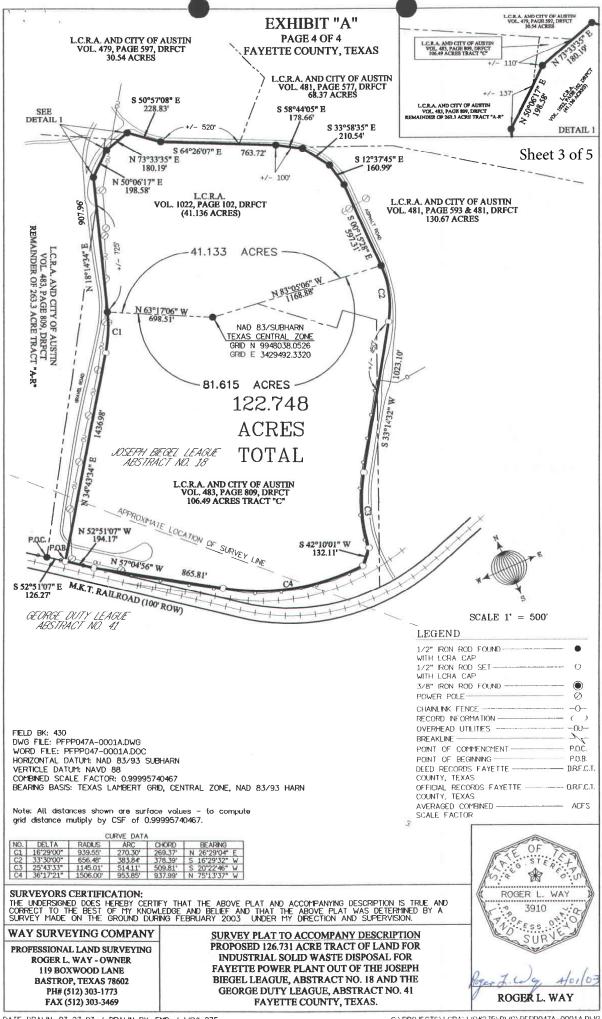
Table VIII.B. - Post-Closure Period

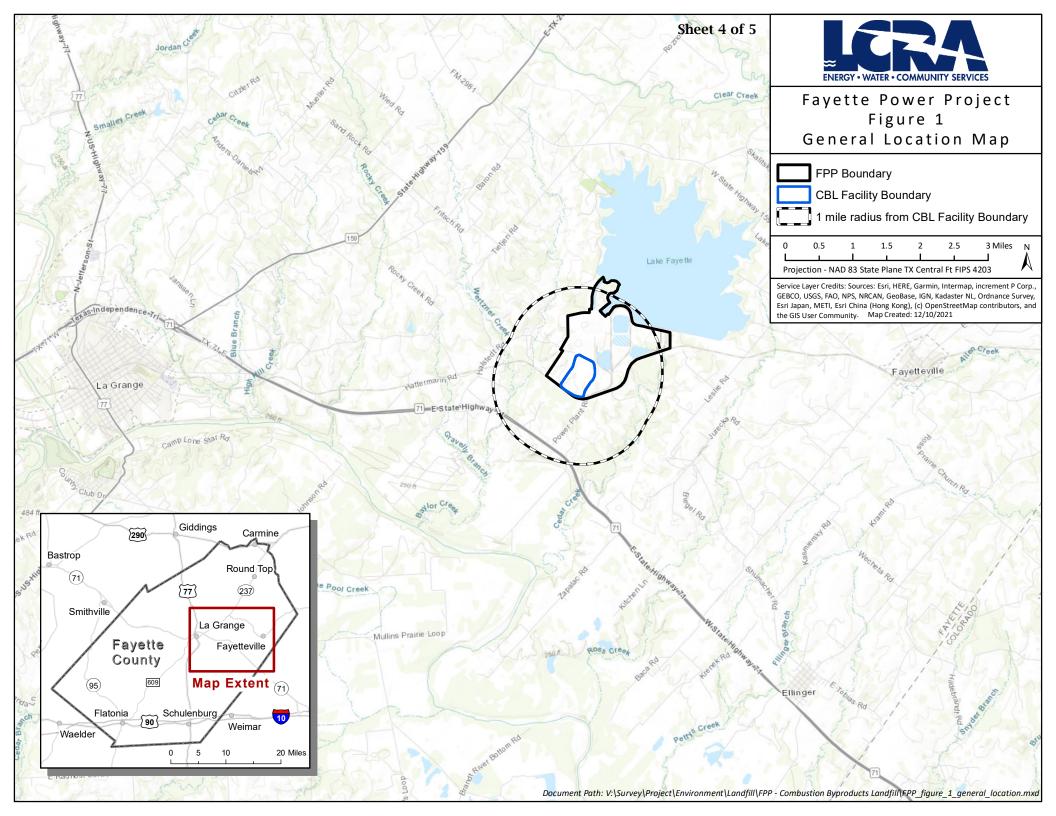
Unit Name	Date Certified Closed	Authorized Post- Closure Period (Yrs.)	Earliest Date Post- Closure Ends ¹
CCR-1	TBD	30 years	TBD

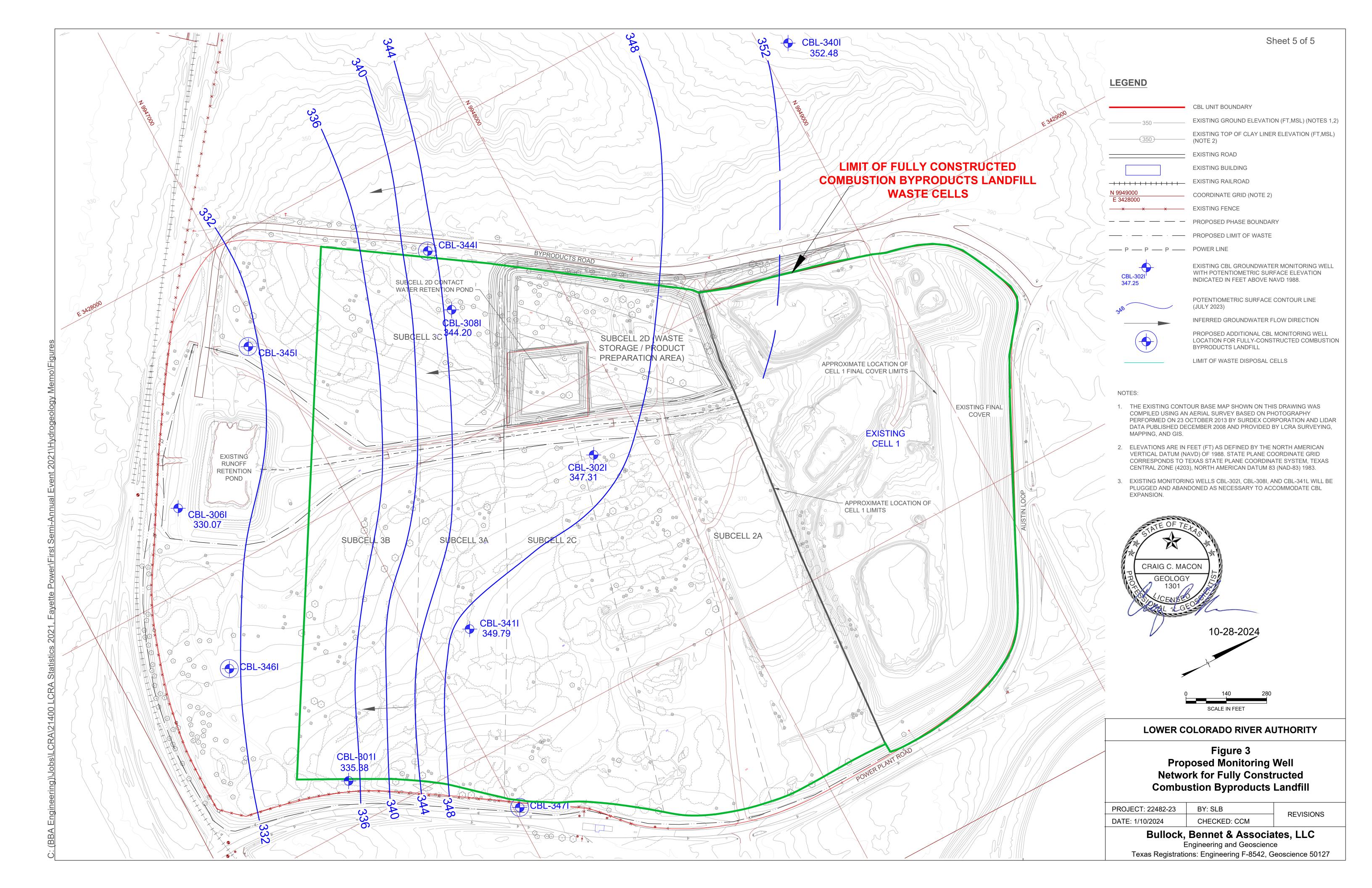
¹ Post-Closure Care shall continue beyond the specified date until the Executive Director has approved the applicant's request to reduce or terminate the post-closure period, consistent with 30 TAC §352.1241 post-closure care requirements.

Attachment A - Registration Boundary and CCR Unit Map









Attachment B - Registration Application Revision Chronology

Classification Type ¹	Revision No.	Application Date ²	Purpose / Description
New	0	January 24, 2022	Initial registration submittal
New	1	November 15, 2023	Technical Notice of Deficiency Response
New	2	February 14, 2024	Addendum to NOD response
New	3	December 5, 2024	Additional Information

¹Classification Types: New, Minor Amendment, Major Amendment, Other (indicate)

² Signature Page Date