 Texas Commission on Environmental Quality

Registration Application for Coal Combustion Residuals (CCR) Waste Management

# General Information

## Reason for Submittal

Type of Registration Application
[ ]  New [ ]  Major Amendment [ ]  Minor Amendment
[ ]  Notice of Deficiency (NOD) Response [ ]  Transfer [ ]  Name Change
[ ]  Other      adsfa

## Application Fees

[ ]  $150 Application Fee

Payment Method

[ ]  Check [ ]  Online through ePay portal <[www3.tceq.texas.gov/epay/](https://www3.tceq.texas.gov/epay/)>

If paid online, enter ePay Trace Number:

## Facility Information

*Facility information must match regulated entity information on the Core Data Form.*

Applicant: [ ]  Owner [ ]  Operator [ ]  Owner/Operator

Facility TCEQ Solid Waste Registration No:

Facility EPA ID:

Regulated Entity Reference No. (if issued): RN

Facility Name:

Facility (Area Code) Telephone Number:

Facility physical street address (city, state, zip code, county):

Facility mailing address (city, state, zip code, county):

Latitude (Degrees, Minutes Seconds):

Longitude (Degrees, Minutes Seconds):

## Publicly Accessible Website

Provide the URL address of a publicly accessible website where the owner or operator of a CCR unit will post information.
http://

## Facility Landowner(s) Information

Facility landowner(s) name:

Facility landowner mailing address:
City:       State:       Zip Code:
(Area Code) Telephone Number:

Email Address (optional):

## CCR Waste Management Unit(s)

[ ]  Landfill Unit(s) [ ]  Surface Impoundment(s)

For each existing landfill, new landfill and lateral expansion, existing surface impoundment, and new surface impoundment and lateral expansion(s) provide information on type of waste, the registered unit(s) in which they are managed, and sampling and analytical methods.

Submit the following tables:

Table I.6. – CCR Waste Management Units;
Table I.6.A. – Waste Management Information;

Table I.6.B. – Waste Managed in Registered Units; and

Table I.6.C. – Sampling and Analytical Methods.

## Description of Proposed Activities or Changes to Existing Facility

Provide a brief description of the proposed activities if application is for a new facility, or the proposed changes to an existing facility or registration conditions, if the application is for an amendment.

## Primary Contact Information

Contact Name:       Title:

Contact mailing address:
City:       County:       State:       Zip Code:
(Area Code) Telephone Number:

Email Address (optional):

## Notice Publishing

Party responsible for publishing notice:
[ ]  Applicant [ ]  Consultant [ ]  Agent in Service

Contact Name:       Title:

Contact mailing address:
City:       County:       State:       Zip Code:
(Area Code) Telephone Number:

## Alternative Language Notice

Is an alternative language notice required for this application? For determination, refer to Alternative Language Checklist on the Public Notice Verification Form (TCEQ-20244-Waste-NORI).

[ ]  Yes [ ]  No

## Public Place Location of Application

Name of the Public Place:
Physical Address:
City:  County:  State:  Zip Code:
(Area code) Telephone Number:

## Ownership Status of the Facility

[ ]  Corporation [ ]  Limited Partnership
[ ]  Sole Proprietorship [ ]  General Partnership [ ]  Other (specify):

Does the Site Owner (Permittee/Registrant) own all the CCR units and all the facility property?

[ ]  Yes [ ]  No

## Property / Legal Description Information

Provide a legal description and supporting documents of the property where the management of CCR waste will occur; including a survey plat and a boundary metes and bounds description (30 TAC §352.231(g)).

Submit the following documents:

1. Property Legal Description
2. Property Metes and Bounds Description
3. Metes and Bounds Drawings
4. On-Site Easements Drawings

## Operator Information

Identify the entity who will conduct facility operations, if the owner and operator are not the same.

Operator Name:
Operator mailing address:
City:       State:       Zip Code:
(Area Code) Telephone Number:
Email Address (optional):

## Confidential Documents

Does the application contain confidential documents?

[ ]  Yes [ ]  No

If “Yes”, cross-reference the confidential documents throughout the application and submit as a separate attachment in a binder clearly marked “CONFIDENTIAL.”

## Permits and Construction Approvals

|  |  |  |  |
| --- | --- | --- | --- |
| Permit or Approval | Received | Pending | Not Applicable |
| Hazardous Waste Management Program under the Texas Solid Waste Disposal Act | [ ]  | [ ]  | [ ]  |
| Underground Injection Control Program under the Texas Injection Well Act | [ ]  | [ ]  | [ ]  |
| National Pollutant Discharge Elimination System Program under the Clean Water Act and Waste Discharge Program under Texas Water Code, Chapter 26 | [ ]  | [ ]  | [ ]  |
| Prevention of Significant Deterioration Program under the Federal Clean Air Act (FCAA).Nonattainment Program under the FCAA | [ ]  | [ ]  | [ ]  |
| National Emission Standards for Hazardous Air Pollutants Preconstruction Approval under the FCAA | [ ]  | [ ]  | [ ]  |
| **Other (describe)** | [ ]  | [ ]  | [ ]  |
| **Other (describe)** | [ ]  | [ ]  | [ ]  |
| **Other (describe)** | **[ ]**  | **[ ]**  | **[ ]**  |

## Legal Authority

The owner and operator of the facility shall submit verification of their legal status with the application. This shall be a one-page certificate of incorporation issued by the secretary of state. The owner or operator shall list all persons having over a 20% ownership in the facility.

## TCEQ Core Data Form

The TCEQ requires that a Core Data Form (TCEQ-10400) be submitted on all incoming applications, unless a Regulated Entity and Customer Reference Number has been issued by the TCEQ and no core data information has changed. For more information regarding the Core Data Form, call (512) 239-5175 or visit the TCEQ Website.

##  Other Governmental Entities Information

**Coastal Management Program**Is the facility within the Coastal Management Program boundary? **[ ]** Yes **[ ]** No

**Local Government Jurisdiction (If Applicable)**
Within City Limits of:
Within Extraterritorial Jurisdiction of:

Is the facility located in an area in which the governing body of the municipality or county has prohibited the storage, processing or disposal of municipal or industrial solid waste?

**[ ]  Yes [ ]  No If “Yes”, provide a copy of the ordinance or order as an attachment.**

## Attachments

**Does the application include the following?**

**General Maps [ ]  Yes [ ]  No**

**General Topographic Map [ ]  Yes [ ]  No**

**Facility Layout Map [ ]  Yes [ ]  No**

**Surrounding Features Map [ ]  Yes [ ]  No**

Process Flow Diagram **[ ]  Yes [ ]  No**

**Land Ownership Map [ ]  Yes [ ]  No**

 **Land Ownership List [ ]  Yes [ ]  No**

 **Pre-printed Mailing Labels [ ]  Yes [ ]  No**

Maps and drawings shall be legible and easily readable by eye without magnification. Scales and paper size shall be chosen based on the type of map submitted, the land area covered, and the amount of detail to be shown. See instructions for details regarding maps and drawings to be submitted in application.

## Verification of Compliance

Does the owner and operator verify that the design, construction, and operation of CCR landfill(s) and surface impoundment(s) meets the requirements of 30 TAC §352.231(f) (30 TAC §352.2; 40 CFR §257.52, and 40 CFR §§257.3-1 – 257.3-3).

**[ ]** Yes **[ ]** No

# Location Restrictions and Geology

See Instructions and Technical Guidance

## Location Restrictions

Submit certifications and technical reports demonstrating compliance of CCR unit(s) with applicable location restrictions (30 TAC 352, Subchapter E) and comply with 30 TAC §352.231(d) and 30 TAC §352.4 for submission of engineering and geoscientific information.

1. **Placement above the uppermost aquifer** (30 TAC §352.601) (40 CFR §257.60). For those CCR units whose base is less than five feet above the upper limit of the uppermost aquifer, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.60(a) – (c).
2. **Wetlands** (30 TAC §352.611) (40 CFR §257.61). For CCR units located in wetlands, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.61(a) – (c).
3. **Fault areas** (30 TAC §352.621) (40 CFR §257.62). For CCR units located within 200 feet of the outermost damage zone of a fault, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.62(a) – (c).
4. **Seismic impact zones** (30 TAC §352.631) (40 CFR §257.63). For CCR units located in a seismic impact zone, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.63(a) – (c).
5. **Unstable areas** (30 TAC §352.641) (40 CFR §257.64). For CCR units located in unstable areas, please submit a copy of the demonstration showing evidence of compliance with 40 CFR §257.64(a) – (d).

## Geology Summary Report

Submit a summary of the geologic conditions at the facility, including the relation of the geologic condition to each CCR unit. The summary must include enough information and data and include sources and references for the information. Include all groundwater monitoring data required by 40 CFR Part 257, Subpart D, (30 TAC §352.241, §352.601, §352.621, §352.631, and §352.641) and submitted in accordance of 30 TAC §352.4.

**Note:** Previously prepared documents may be submitted but must be supplemented or updated as necessary to provide the requested information (30 TAC §352.241(b)).

# Fugitive Dust Control Plan

## Fugitive Dust Control Plan

1. **Submit a copy of the CCR Fugitive Dust Control Plan** (30 TAC §352.801) (40 CFR §257.80(b)), or the most recently amended plan. The initial plan or subsequent amended plan must be certified by a qualified Texas licensed professional engineer (Texas P.E.) that the plan meets the requirements of 30 TAC Chapter 352.
2. **Submit the most recent Annual CCR Fugitive Dust Control Report** (30 TAC §352.801) (40 CFR §257.80(c)) and include the report information.

# ****Landfill Criteria****

See Instructions and Technical Guidance – No. 30 Coal Combustion Residuals Landfill

## Landfill(s) for CCR Waste

Provide the following information below if there is a landfill; if there is more than one landfill, separate information is required for each landfill.

1. Landfill Characteristics

Describe the design, installation, construction, and operation of the landfill and submit a completed Table IV.A. – Landfill Characteristics.

1. Liner Design
2. For existing landfills, provide attachments describing how the facility will comply with 30 TAC 352, Subchapter F (Design Criteria).
3. For new landfills or lateral expansions of existing landfills, submit pages describing how the facility will comply with 30 TAC §352.261 and 30 TAC §352.701.
4. Complete Table IV.B. - Landfill Liner System and specify the type of liner used for the landfill.
5. Provide attachments describing the design, installation, and operation of the liner and leak detection system. The description must demonstrate that the liner and leak detection system will prevent discharge to the land, groundwater, and surface water. Submit a quality assurance project plan (QAPP) to ensure that each analysis is performed appropriately.
6. Leachate Collection and Removal

Submit design information and description of leachate collection and removal system in accordance with 30 TAC §352.701.

Complete Table IV.C. - Landfill Leachate Collection System

1. Design of Liner and Leachate Collection and Removal System.

For a new landfill or lateral expansion of a CCR landfill, provide a qualified Texas P.E. certification and technical report that the design of the liner and the leachate collection and removal system meets the requirements of 30 TAC §352.711.

1. Run-on and Run-off Controls

At time of application, attach pages describing how the facility will comply with the run-on and run-off system plan for an existing, new, or lateral expansion of a CCR landfill information. Provide a qualified Texas P.E. certification and technical report that the run-on and run-off control system plans meet the requirements of 30 TAC §352.811.

1. Inspection for Landfills

At time of application, attach pages describing how the facility will comply 30 TAC §352.841 and complete Table IV.D. – Inspection Schedule for Landfills. For existing CCR landfills, provide the most recent inspection report. All CCR landfills and any lateral expansions of a CCR landfill must be inspected for any structural weakness, malfunction, deterioration conditions which are disrupting or have the potential to disrupt the operation or safety of the CCR unit, or any other conditions which may cause harm to human health and environment at a frequency specified in 40 CFR §257.84(a) and (b).

# ****Surface Impoundment Criteria****

See Instructions and Technical Guidance – No. 31 Coal Combustion Residuals Surface Impoundment

##  Surface Impoundment(s) for CCR Waste

Provide the following information below if there is a surface impoundment; if there is more than one surface impoundment, separate information is required for each surface impoundment.

1. General Surface Impoundment(s) Characteristics

Provide information about the characteristics of the surface impoundment(s): incised, surface area (acres), storage volume (acres-feet), and depth (feet).

For all surface impoundment(s), include the following information:

1. Complete Table V.A. - Surface Impoundments Characteristics. List the surface impoundment(s) to be registered as a CCR unit(s), the wastes managed in each unit, and the rated capacity or size of each unit.
2. Describe the surface impoundment(s) and provide a plan view drawing with cross-sections, if available.
3. Specify the minimum freeboard to be maintained and the basis of the design to prevent overtopping resulting from normal or abnormal operation; overfilling; wind and wave action; rainfall; run-on; malfunctions of level controllers, alarms, and other equipment; and human error. Show that adequate freeboard will be available to prevent overtopping from a 100-year, 24-hour storm.
4. Waste Flow
Describe the means that will be used to immediately shut off the flow of waste to the impoundment in the event of liner failure or to prevent overtopping.
5. Dike Construction **[ ]** Yes **[ ]** No

If Yes, submit the dike certification (located at the end of the application).

The structural integrity of the dike system must be certified by a qualified Texas P.E. before the registration is issued. If the impoundment is not being used, the dike system must be certified before it can be put into use. The certification must be sealed by a qualified Texas P.E., along with the engineering firm’s name and registration number (30 TAC §352.4).

A report shall accompany the dike certification which summarizes the activities, calculations, and laboratory and field analyses performed in support of the dike certification. Describe the design basis used in construction of the dikes. A QAPP should be included in the report to ensure that each analysis is performed appropriately and include:

(1) Slope Stability Analysis

(2) Hydrostatic and Hydrodynamic Analysis

(3) Storm Loading

(4) Rapid Drawdown

Earthen dikes should have a protective cover to minimize wind and water erosion and to preserve the structural integrity of the dike. Describe the protective cover used and describe its installation and maintenance procedures.

1. Liner Design

For surface impoundment(s), provide information about how the facility will comply with 30 TAC §352.711 for existing CCR surface impoundments. For new and lateral expansion of CCR surface impoundments provide information on how the facility will comply with 30 TAC §352.261, and 30 TAC §352.721, see Instructions and Technical Guidance No. 31 Coal Combustion Residuals Surface Impoundment. The qualified Texas P.E. must certify that the design of the liner complies with the requirements of 30 TAC Chapter 352 and 40 CFR Part 257, Subpart D, where required.

Is the CCR surface impoundment unlined? [ ]  Yes [ ]  No

If “Yes”, the CCR unit is subject to the closure requirements under 30 TAC Chapter 352 and 40 CFR §257.101(a) to retrofit or close. A notification must be prepared stating that an assessment of corrective measures has been initiated.

1. Complete Table V.B. - Surface Impoundment Liner System for each surface impoundment to be registered.
2. Describe the design, installation and operation of liner and leak detection components. The description must demonstrate that the liner and leak detection system will prevent discharge to the land and surface water. Submit a QAPP report to ensure that each analysis is performed appropriately.
3. For new or laterally expansions of existing surface impoundments, provide a subsurface soil investigation report that must include:
4. A description of all borings drilled, at the unit location, to test soils and characterize groundwater;
5. A unit map drawn to scale showing the surveyed locations and elevations of the borings, including location of permanent identification markers ((30 TAC §352.731) and (40 CFR §257.73(a)(1));
6. Cross-sections prepared from the borings depicting the generalized strata at the unit;
7. Boring logs, including a description of materials encountered, and any discontinuities such as fractures, fissures, slickensides, lenses or seams;
8. A description of the geotechnical data and the geotechnical properties of the subsurface soil materials, including the suitability of the soils and strata for the intended uses; and
9. A demonstration that all geotechnical tests were performed in accordance with industry practices and recognized procedures.
10. **Hazard Potential Classification**

Provide the current hazard potential classification assessment and associated documentation, as required by 30 TAC §352.731 or §352.741 and 40 CFR §257.73(a)(2) or §257.74(a)(2). The qualified Texas P.E. must certify that the initial hazard potential classification and any subsequent periodic classification was conducted in accordance with the requirements of 30 TAC Chapter 352, where required.

Hazard Potential Classification:

1. Emergency Action Plan for High or Significantly High Hazard **Potential**

Provide the current Emergency Action Plan that has been certified by a qualified Texas P.E. and includes the following requirements from 30 TAC 352, Subchapter F and 40 CFR §257.73(a)(3)(i)(A) - (E) or 40 CFR §257.74 (a)(3)(i)(A) - (E). The qualified Texas P.E. must certify that the written Emergency Action Plan and any subsequent amendment of the plan complies with the requirements of 30 TAC 352, Subchapter F, where required.

Complete **Table V.J. - Inspection of Surface Impoundments**

1. Inflow Design Flood Control System Plan

Describe how the surface impoundment(s) system will manage stormwater run-on away from the surface impoundment(s) (30 TAC §352.821 and 40 CFR §257.82(a) and (c)). Stormwater run-on must be diverted away from a surface impoundment, based on the hazard potential. Where dikes are used to divert run-on, they must be protected from erosion. Include all analyses used to calculate run-on volumes. Provide the inflow design flood control system plan. Provide qualified Texas P.E. certification that the initial and periodic inflow design flood control system plans meet the requirements of 30 TAC §352.821, where required.

1. History of Construction for Existing CCR Surface Impoundment(s), or the Design and Construction Plans for New and Lateral Expansions

Provide information on the history of construction for each existing CCR surface impoundment (30 TAC §352.731 and 40 CFR §257.73(c)) or the design and construction plans for new and lateral expansions of each CCR surface impoundment (30 TAC §352.741) and (40 CFR §257.74(c)).

1. Structural Stability Assessment

Provide the most recent structural stability assessment of the surface impoundments. Include the combined capacity of all surface impoundment spillways with calculations; the peak discharge the unit must meet for all combined spillways; probable maximum flood-high hazard, 1,000-yr-significant high hazard, 100-yr-low hazard; identify if there were any structural stability deficiencies in last assessment; identify how these deficiencies were managed and corrected; and qualified Texas P.E. certification. The structural stability assessment must include all information required in 30 TAC §352.731 for existing surface impoundments or 30 TAC §352.741 for new or laterally expanding surface impoundments.

1. Safety Factor Assessment

The current safety factor assessment must be submitted with the application. It must include documentation that demonstrates whether the calculated factors of safety for each CCR surface impoundment achieve the minimum safety factors specified in 30 TAC 352, Subchapter F and 40 CFR §257.73(e)(1)(i) - (iv) and 40 CFR §257.74(e)(1)(i) - (iv) for the critical cross-section of the embankment. The critical cross-section is the cross-section anticipated to be the most susceptible to structural failure based on appropriate engineering considerations, including loading conditions. The safety factor assessments must be supported by appropriate engineering calculations and certified by a qualified Texas P.E.

# ****Groundwater Monitoring and Corrective Action**** ****(30 TAC 352, Subchapter H)****

See Instructions and Technical Guidance – No. 32 Coal Combustion Residuals Groundwater Monitoring and Corrective Action

## Groundwater Monitoring System

1. Complete Table VI.A. - Unit Groundwater Detection Monitoring System.
2. Provide a map showing location of wells, groundwater elevations, and groundwater flow direction.
3. Provide attachments describing how the facility will comply with the requirements in 30 TAC §352.911 and provide a certification by a qualified Texas P.E or qualified Texas P.G. that the groundwater monitoring system design and construction meet the requirements of 30 TAC Chapter 352.
4. Provide a figure showing the geologic units and fill materials overlying the uppermost aquifer, materials comprising the uppermost aquifer, and materials comprising the confining unit defining the lower boundary of the uppermost aquifer, including, but not limited to, thicknesses, stratigraphy, lithology, hydraulic conductivities, porosities and effective porosities.
5. For a multiunit groundwater monitoring system, demonstrate that the groundwater monitoring system will be equally as capable of detecting monitored constituents at the waste boundary of the CCR unit as the individual groundwater monitoring system for each CCR unit by providing at minimum the following information:
6. Number, spacing, and orientation of each CCR unit;
7. Hydrogeologic setting; and
8. Site history.
9. Has there been any sampling concentrations of one or more constituents listed in Appendix IV detected at statistically significant levels above the groundwater protection standard (GWPS)? **[ ]** Yes **[ ]** No
10. Provide information on how monitoring wells have been constructed and cased in a manner that maintains the integrity of the monitoring well borehole and to prevent contamination of samples and the groundwater.

## Groundwater Monitoring Sampling and Analysis Program

Provide a sampling and analysis plan that includes procedures and techniques; sampling and analytical methods that are appropriate for groundwater sampling; and that address the requirements of 30 TAC §352.931 and 40 CFR §257.93. Provide a P.E or P.G. certification that describes the statistical method selected to evaluate the groundwater monitoring data and certifies that the selected statistical method is appropriate for evaluating the groundwater monitoring data for the CCR management area. Refer to TG-32 for information and guidance.

## CCR Unit(s) in a Detection Monitoring Program

Does the facility have CCR unit(s) in a Detection Monitoring Program?

**[ ]** Yes **[ ]** No

If “Yes”, Submit the following information:

1. Submit Table VI.C. – Facility CCR Units Under Detection Monitoring.
2. Provide a Background Evaluation Report.
3. Provide a report with the results of semiannual monitoring events.
4. Has a statistically significant increase (SSI) been detected for one or more of the constituents listed in Appendix III at any monitoring well?

**[ ]** Yes **[ ]** No

1. Has a notification to the executive director been sent within 14 days?

**[ ]** Yes **[ ]** No

1. Date assessment monitoring program will start:
2. Do you plan to provide an alternative source demonstration (ASD)?

**[ ]** Yes **[ ]** No

## CCR Unit(s) in an Assessment Monitoring Program

Does the facility have CCR unit(s) in an Assessment Monitoring Program?

**[ ]** Yes **[ ]** No
If “Yes”, Submit information related for units.

1. Complete Table VI.D. – CCR Units Under Assessment Monitoring.
2. Provide, for each well in assessment monitoring status, the recorded concentrations lab sheets and results in a tabulated form.
3. Have the concentrations of all constituents listed in Appendices III and IV been at or below background values, using the statistical procedures in 30 TAC §352.931 and 40 CFR §257.93(g), for two consecutive sampling events for the CCR unit(s)? **[ ]** Yes **[ ]** No

If answer to above is yes, detection monitoring may resume. The owner or operator must prepare a notification stating that detection monitoring is resuming for the CCR unit and obtain written approval from the executive director.
4. Are there any concentrations of any constituent in Appendices III and IV above background values? [ ]  Yes [ ]  No
5. Has a notification to the executive director been sent within 14 days?

**[ ]** Yes **[ ]** No

1. Date assessment of corrective measures will be initiated (must be within **90** **days** of finding a statistically significant level above the GWPS) for the CCR unit(s):
2. Will you provide an ASD (see TG-32 for an acceptable submittal)? [ ]  Yes [ ]  No
3. Date assessment of corrective measures will be initiated if ASD is not accepted?
4. Complete **Table VI.D-2. - Groundwater Detection Monitoring Parameters**
**Note**: Refer to TG-32 regarding establishing a GWPS for each constituent in Appendix IV detected in the groundwater and attach as table.
5. Have you completed the assessment of corrective measures? [ ]  Yes [ ]  No
If “Yes”, date assessment of corrective measures was completed:
If “No”, date assessment of corrective measures will be completed:
Expected date of submittal of amendment (see note below):
Provide completed assessment of corrected measures materials.
 **Note**: Within **30 days** of completing the assessment of corrective measures, and before remedy implementation, the owner or operator shall submit an application for amendment to the registration. In some circumstances, the assessment of corrective measures and selected remedy may be approved as part of the initial application for the CCR unit registration.
6. Have you selected a remedy? **[ ]** Yes **[ ]** No
Provide public meeting documentation under 30 TAC §352.961 and a report under 30 TAC §352.971 and 40 CFR §257.97.

# Closure and Post-Closure Care

 See Instructions and Technical Guidance

Submit a full closure plan and post-closure plan and all information describing how the owner or operator will comply with 30 TAC 352, Subchapter J and 40 CFR §§257.100 - 257.104. The owner of property on which an existing disposal facility is located, following the closure of a unit, must also submit documentation that a notation has been placed in the deed to the facility that will in perpetuity notify any potential purchasers of the property that the land has been used to manage CCR wastes and its use is restricted (30 TAC §352.1221 and 40 CFR §257.102(i)). For CCR units, closed after October 19, 2015, that were closed before submission of the application, the applicant should submit documentation to show that notices required under 30 TAC 352, Subchapter K and 40 CFR §257.105 or §257.106 have been filed.

## Closure Plan

This section applies to the owners and operators of all CCR units required to be registered. The applicant must close the facility in a manner that minimizes need for further maintenance and controls, or eliminates, to the extent necessary to protect human health and the environment, the post-closure release of CCR waste, chemical constituents of concern, leachate, contaminated rainfall, or waste decomposition products to the groundwater, surface waters, or to the atmosphere.

The type of unit to be closed can determine the level of detail sufficient for a closure plan. CCR units which have been certified closed after October 19, 2015, must provide documentation to demonstrate compliance with state and federal regulations.

For each unit to be registered, complete Table VII.A.1. - Unit Closure and list the CCR Unit components to be decontaminated, possible methods of decontamination, and possible methods of disposal of wastes and waste residues generated during unit closure. All ancillary components must be decontaminated, and the generated waste disposed of appropriately.

Information about CCR units closed or to be closed under alternative closure requirements must be provided in Table VII.A.2. - **CCR Units Under Alternative Closure Notification**.

Guidance on design of a closure cap and final cover for non-hazardous industrial solid wastes landfills is provided in EPA publication 530-SW-85-014, TCEQ Technical Guidance No. 3 and TCEQ publication, RG-534, “Guidance for Liner Construction and Testing for a Municipal Solid Waste Landfill”.

## Post-Closure Care Plan

Provide a post-closure care plan that complies with the requirements of 30 TAC §352.1241. Post-closure care of each CCR unit must continue for at least 30 years after the date of completing closure of the unit and must consist of monitoring and reporting of the groundwater monitoring systems, in addition to the maintenance and monitoring of CCR unit. Continuation of certain security requirements may be necessary after the date of closure. Post-closure use of property on or in which waste remains after closure must never be allowed to disrupt the integrity of the containment system. In addition, submit the following information:

* The name, address, and phone number of the person or office to contact about the CCR unit during the post-closure period; and
* A discussion of the future use of the land associated with each unit.

Landfills and surface impoundments which have been certified closed after October 19, 2015, must be included in post-closure care plans, unless they have been determined to have been closed by waste removal equivalent to the closure standards in 30 TAC §352.1221 and 40 CFR §257.102 or 30 TAC §352.1231 and 40 CFR §257.103. If such a demonstration has been made pursuant to 40 CFR §257.102 or §257.103, but an equivalency determination has not been made, please submit a copy of the demonstration documentation. If an equivalency determination has been made, applicant should submit a copy of this determination.

# Financial Assurance

## Post-Closure Care Cost Estimate

Financial assurance for post-closure care (30 TAC §352.1101) applies to owners or operators of all CCR units, except CCR units from which the owner or operator intends to remove wastes and perform clean closure. Provide a written cost estimate in current dollars of the total cost of the 30-year (or longer, if applicable under 30 TAC §352.1101(d)) post-closure care period to perform post-closure care requirements as prescribed in 30 TAC §352.1241. The cost estimate must be based on the costs of hiring a third party to conduct post-closure care maintenance.

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

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

## Financial Assurance Mechanism

The financial assurance for post-closure care is required in accordance with 30 TAC §352.1101. The applicant shall demonstrate the financial assurance within 90 days after approval of the registration with a financial mechanism acceptable to TCEQ in compliance with 30 TAC §352.1101(c) and 30 TAC §37, Subchapters A through D, except as indicated in 30 TAC §352.1111, in an amount no less than the amount specified in the approved Post-Closure Care Cost Summary. Provide a description of the proposed financial assurance mechanism.

Complete Table VIII.B. - Post-Closure Period, for the authorized post-closure period, to meet the requirements of 30 TAC §352.1241(a) through (c).

**Signature Page**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

**Applicant** Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name and Official Title (type or print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

**Owner or Operator** Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_

Name and Official Title (type or print): \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

To be completed by the owner or operator if the application is signed by an authorized representative for the operator

I, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ hereby designate \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

 (operator) (authorized representative)

as my representative and hereby authorize said representative to sign any application, submit additional information as may be requested by the Commission; and/or appear for me at any hearing or before the Texas Commission on Environmental Quality in conjunction with this request for a CCR waste management registration. I further understand that I am responsible for the contents of this application, for oral statements given by my authorized representative in support of the application, and for compliance with the terms and conditions of any registration which might be issued based upon this application.

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Printed or Typed Name of Applicant or Principal Executive Officer

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Signature

(Note: Application Must Bear Signature & Seal of Notary Public)

**Subscribed and sworn** to before me by the said \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ on this

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_.

My commission expires on the \_\_\_\_\_\_\_\_\_\_\_\_ day of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, \_\_\_\_\_\_\_\_

(Seal) Notary Public in and for \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ County, Texas

# Registration Application for Coal Combustion Residuals Waste Management

(See instructions for P.E/P.G. seal requirements.)

**Attachments and Tables Attachment No.**

General Information

 Attachments

 Technical Report and Certification

Location Restrictions Certifications

 Placement above the uppermost aquifer

 Wetlands

 Fault Areas

 Seismic impact zones

 Unstable areas

Geology Summary

CCR Fugitive Dust Control Plan

Annual CCR Fugitive Dust Control Report

Landfill Design and Operating Criteria

 Landfill Characteristics

 Liner Design

 Leachate Collection and Removal

 Run-on and Run-off Controls

 Inspection for Landfills

Surface Impoundment Design and Operating Criteria

 General Surface Impoundment Characteristics

 Liner Design

 Hazard Potential Classification

 Emergency Action Plan

 Inflow Design Flood Control System Plan

**Construction History/Design Plans**

 Structural Stability Assessment

 **Safety Factor Assessment**

Groundwater Monitoring and Corrective Action

 **Groundwater Monitoring System**

 **Groundwater Monitoring Sampling and Analysis Program**

 **Detection Monitoring Program**

 **Assessment Monitoring Program**

 Assessment of Corrective Measures

 **Remedy Report**

**Closure and Post-Closure Care**

 **Closure Plan**

 **Post-Closure Care**

**Financial Assurance**

**Tables**

|  |  |  |
| --- | --- | --- |
| Tables | Submitted | Not Applicable |
| **Table** **I.6. - CCR Waste Management Units** | [ ]  | [ ]  |
| **Table I.6.A. - Waste Management Information** | [ ]  | [ ]  |
| **Table I.6.B. - Wastes Managed in Registered Units** | [ ]  | [ ]  |
| **Table I.6.C. - Sampling and Analytical Methods** | [ ]  | [ ]  |
| **Table IV.A. - Landfill Characteristics** | [ ]  | [ ]  |
| **Table IV.B. - Landfill Liner System** | [ ]  | [ ]  |
| **Table IV.C. - Landfill Leachate Collection System** | [ ]  | [ ]  |
| **Table IV.D. - Inspection Schedule of Landfills** | [ ]  | [ ]  |
| **Table V.A. - Surface Impoundments Characteristics** | [ ]  | [ ]  |
| **Table V.B. - Surface Impoundment Liner System** | [ ]  | [ ]  |
| **Table V.J. - Inspection of Surface Impoundments** | [ ]  | [ ]  |
| **Table VI.A. - Unit Groundwater Detection Monitoring System** | [ ]  | [ ]  |
| **Table VI.C. - CCR Units Under Detection Monitoring** | [ ]  | [ ]  |
| **Table VI.D. - CCR Units Under Assessment Monitoring** | [ ]  | [ ]  |
| **Table VI.D-2. - Groundwater Detection Monitoring Parameters** | [ ]  | [ ]  |
| **Table VII.A.1. - Unit Closure** | [ ]  | [ ]  |
| **Table VII.A.2. - CCR Units Under Alternative Closure Notification** | [ ]  | [ ]  |
| **Table VIII.A.1. - Post-Closure Cost Summary for Existing Registered Units** | [ ]  | [ ]  |
| **Table VIII.A.2. - Post-Closure Cost Summary for Proposed Registered Units** | [ ]  | [ ]  |
| **Table VIII.B. - Post-Closure Period** | [ ]  | [ ]  |
| **Engineering Certification(s) - Dike Construction** | [ ]  | [ ]  |

**Additional Attachments as Applicable - Select all those apply and add as necessary**[ ]  TCEQ Core Data Form(s)
[ ]  Signatory Authority Delegation
[ ]  Fee Payment Receipt
[ ]  Confidential Documents
[ ]  Certificate of Fact (Certificate of Incorporation)
[ ]  Assumed Name Certificate

Table I.6. – CCR Waste Management Units

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| CCR Unit No.1 | Unit Name | N.O.R. No.1 | Unit Description3 | Capacity | Unit Status2 |
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1 Registered Unit No. and N.O.R. No. cannot be reassigned to new units or used more than once.

2 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 | Volume (tons/year) |
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1 Assign waste number sequentially. Do not remove waste number wastes which are no longer generated.

Table I.6.B. – Wastes Managed in Registered Units

|  |  |  |
| --- | --- | --- |
| Waste No.1 | Waste | TCEQ Waste Form Codes and Classification Codes |
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1 from Table I.6.A., first column

Table I.6.C – Sampling and Analytical Methods

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Waste No.1 | Sampling Location | Sampling Method | Frequency | Parameter | Test Method | Desired Accuracy Level |
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1 from Table I.6.A., first column

Table IV.A. – Landfills Characteristics

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Registered Unit No. | Landfill | N.O.R. No. | Waste Nos.1 | Rated Capacity | Dimensions2 | Distance from lowest liner to groundwater | Action Leakage Rate (if required) | Unit will manage CCR Waste and non-CCR Waste (state all that apply) |
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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.

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 |
| --- | --- | --- | --- | --- | --- | --- | --- |
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\* This number should match the Registration 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 |
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| --- | --- | --- |
| Facility Unit(s) and Basic Elements | Possible Error, Malfunction, or Deterioration | Frequency of Inspection |
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Table IV.D. – Inspection Schedule of Landfills

Table V.A. – Surface Impoundment Characteristics

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Registered Unit No. | Surface Impoundment Name  | N.O.R. No. | Waste Nos.1 | Rated Capacity | Dimensions2 | Distance from lowest liner to groundwater | Action Leakage Rate (if required) | Unit will manage CCR Waste and non-CCR Waste (state all that apply) |
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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.

Table V.B. – Surface Impoundment Liner System

| Registered Unit No.\* | Surface Impoundment Name | Geomembrane Liner Material | Geomembrane Liner Permeability (cm/sec) | Geomembrane Liner Thickness | Soil Liner Material | Soil Liner Permeability (cm/sec) | Soil Liner Thickness |
| --- | --- | --- | --- | --- | --- | --- | --- |
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\* This number should match the Registration Unit No. given on Table V.A.

Table V.J. – Inspection Schedule of Surface Impoundments

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| --- | --- | --- |
| Facility Unit(s) and Basic Elements | Possible Error, Malfunction, or Deterioration | Frequency of Inspection |
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| Waste Management Unit/Area Name1 |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Well Number(s): |  |  |  |  |  |  |
| Hydrogeologic Unit Monitored |  |  |  |  |  |  |
| Type (e.g., point of compliance, background, observation, etc.) |  |  |  |  |  |  |
| Up or Down Gradient |  |  |  |  |  |  |
| Casing Diameter and Material |  |  |  |  |  |  |
| Screen Diameter and Material |  |  |  |  |  |  |
| Screen Slot Size (in.) |  |  |  |  |  |  |
| Top of Casing Elevation (Ft, Mean Sea Level *[MSL]*) |  |  |  |  |  |  |
| Grade or Surface Elevation (Ft, MSL) |  |  |  |  |  |  |
| Well Depth (Ft, Below Grade Surface [BGS]) |  |  |  |  |  |  |
| Well Depth (Ft, Below Top of Casing [BTOC]) |  |  |  |  |  |  |
| Screen IntervalFrom (Ft, BGS)To (Ft, BGS) |  |  |  |  |  |  |
| Screen Interval From (Ft, BTOC)To (Ft, BTOC) |  |  |  |  |  |  |

Table VI.A. – Unit Groundwater Detection Monitoring Systems

1 From Tables in Section I.; MSL: Mean Sea Level; BGS: Below Grade Surface; BTOC: Below Top of Casing

Table VI.C. – CCR Units Under Detection Monitoring

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| N.O.R. Unit No. | Unit Description1,2 | Well(s) | Constituent(s) | Date of SSI Determination  | Date of Assessment Monitoring Notification3 |
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1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.

2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.

3 Enter month, day, and year.

Table VI.D. – CCR Units Under Assessment Monitoring

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| N.O.R. Unit No. | Unit Description1,2 | Well(s) | Constituent(s) | Date of SSI Determination  | Date of Assessment Monitoring Notification3 |
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1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.

2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.

3 Enter month, day, and year

Table VI.D-2. – Groundwater Detection Monitoring Parameters

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Parameter | Sampling Frequency | Analytical Method | Practical Quantification Limit (units) | Concentration Limit1 |
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1 The concentration limit is the basis for determining whether a release has occurred from the CCR unit/area.

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.

|  |  |  |
| --- | --- | --- |
| Equipment or CCR Unit | Possible Methods of Decontamination1 | Possible Methods of Disposal1 |
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1 Applicants may list more than one appropriate method.

Table VII.A.2. – CCR Units Under Alternative Closure Notification

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Registered Unit No. | N.O.R. Unit No. | Unit Description1,2 | Date of Receipt of Last Waste3 | Date of Closure Notification3 |
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1 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been requested pursuant to 40 CFR §257.103.

2 Indicates a unit for which a 30 TAC Chapter 352/40 CFR Part 257, Subpart D alternative closure determination has been made pursuant to 40 CFR §257.103.

3 Enter month, day, and year.

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

|  |  |
| --- | --- |
| Unit | Cost |
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| Total Existing Unit Post-Closure Cost Estimate | $$$$$$$$$$$$$$$$$(in 20\_\_ Dollar)1 |
|  |  |

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

|  |  |
| --- | --- |
| Unit | Cost |
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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 (See Note 1) |
| [Unit Example 1]  | [1/1/1995] | 30 years | [1/1/2025] |
| [Unit Example 2] | [1/1/1990] | 30 years | [1/1/2020] |
| [Unit Example 3] | [1/1/1984] | 30 years | [1/1/2014] |

Note 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.

**Surface Impoundments: Dike Construction**

For each surface impoundment dike, complete the following information:

"I, \_\_\_\_\_\_\_\_(licensed Professional Engineer), Texas P.E. License Number \_\_\_\_\_\_\_\_\_, of Registered Firm \_\_\_\_\_\_\_\_(Name), Registered Firm No.\_\_\_\_\_\_\_\_ (Registration Number), certify under penalty of law that I have personally examined and am familiar with the design and construction of the dikes that are a portion of (surface impoundment unit name).

 I further certify that I have evaluated the dike design and materials of construction using accepted engineering procedures, and have determined that the dike, including the portion of the dike providing freeboard, has structural integrity, and is constructed in accordance with applicable surface impoundment criteria per the following:

\_\_\_\_\_ Existing Diked Surface Impoundment – [40 CFR 257.73(a)(1) through (4)](https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=49f1e7ea0c535a79e340cf0c1543bc79&mc=true&n=pt40.27.257&r=PART&ty=HTML#sp40.27.257.d) and [30 TAC Section 352.731.](https://texreg.sos.state.tx.us/public/readtac%24ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=352&rl=731)

\_\_\_\_\_\_ New or Lateral Diked Surface Impoundment – [40 CFR 257.74(a)(1) through (4)](https://www.ecfr.gov/cgi-bin/retrieveECFR?gp=&SID=49f1e7ea0c535a79e340cf0c1543bc79&mc=true&n=pt40.27.257&r=PART&ty=HTML#sp40.27.257.d) and [30 TAC Section 352.741.](https://texreg.sos.state.tx.us/public/readtac%24ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=30&pt=1&ch=352&rl=741)

Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_"

"(Signature)"

"(Seal)"