Introduction

On June 30, 2022 and July 5, 2022, the North Dakota Department of Environmental Quality (Department) received a permit application for a modification for the Rainbow Energy Center, LLC – Coal Creek Station’s (Rainbow Energy) coal combustion residuals (CCR) solid waste management units. On September 1, 2022, the Department received additional details to complete the permit application review.

Rainbow Energy currently owns and operates a CCR and special waste landfill and surface impoundment facility, regulated under Permit 0033 on approximately 2,560 acres, of which 320 acres are usable for solid waste activities, located in the Sections 16 and 17, Township 145 North, Range 82 West in McLean County, ND. Rainbow Energy is proposing to modify their permit to meet the requirements of North Dakota Administrative Code (NDAC) Chapter 33.1-20-08 for CCR facilities. The facility was first permitted in 1983.

Design

The permit application covers four individual solid waste management units, the Drains Pond System, Upstream Raise 91, Upstream Raise 92, and the Southeast Section 16 Landfill. The units are located within the plant site of a large coal-fired steam electric generating plant (SEGP), or power plant, and are used for processing and disposal of waste streams from the plant and the Spiritwood Station, another SEGP owned by Great River Energy.

The Drains Pond System is a connected series of surface impoundment cells that is used to dewater bottom ash and economizer ash and clarify process water for reuse. Upstream Raises
91 and 92 are surface impoundments that will be closed with waste in place. The Southeast Section 16 landfill is used for dry wastes.

**Operation**

The Drains Pond System receives bottom ash, pulverizer rejects, and economizer ash that are sluiced out of the power plant process. The flow first enters the west pond, where most of the solids settle and are removed for beneficial reuse or disposal. The center pond further clarifies the process water from the west cell. The east cell is primarily a process water storage pond. The west and center cells are CCR impoundments, and the east cell is a non-CCR surface impoundment.

Upstream Raise 91 is a CCR impoundment that receives flue-gas desulfurization (FGD) material that is sluiced out of the power plant. FGD settles in Upstream Raise 91, and process water is returned to the plant.

Upstream Raise 92 is an inactive CCR impoundment that that received FGD material and is in the process of dewatering prior to final closure.

The Southeast Section 16 Landfill and surface impoundment are used for disposal of solid CCR wastes such as fly ash from the facility and the Spiritwood Station and for inert waste, primarily construction and demolition waste from plant operations. The surface impoundment receives contact water and leachate from the landfill.

The Department reviewed the 2021 CCR Groundwater Report and noted the following.

- The Drains Pond System CCR Surface Impoundment had an elevated parameter in cumulative sum for chloride at downgradient MW-DP4 during the 4th quarter sampling event in 2021. The 2021 2nd quarter sample results for chloride in MW-DP4 were 71 mg/L. The 2021 4th quarter sample results for chloride in MW-DP4 were 74 mg/L.

- The Upstream Raise 91 CCR Surface Impoundment had calculated cumulative sum values above the statistical limit at upgradient MW-75. The reported values reflect a change in reporting limit due to a switch in analytical laboratories. Since the values are associated with non-detect results that are at the reporting limit, without dilutions for an upgradient monitoring location, the sample results are not considered elevated cumulative sums. Downgradient MW-50 remains dry, as observed since 2015.

- The Upstream Raise 92 CCR Surface Impoundment had two well-constituent pairs exhibit increasing trends. Downgradient MW-12 had increasing sulfate concentrations. Upgradient MW-72 had increasing sulfate concentrations. The Upstream Raise 92 CCR Surface Impoundment had elevated parameters in cumulative sums for boron at downgradient MW-10 and downgradient MW-16-1 in both sampling events in 2021. Elevated parameters in cumulative sums for sulfate were also detected at MW-16-1 in both sampling events in 2021. A potential exceedance was identified for boron at upgradient MW-72 in the 2021 4th quarter sampling event.

- The Southeast 16 CCR Landfill had an elevated parameters in cumulative sums for chloride and sulfate at downgradient MW-44 during the 4th quarter sampling event in 2021.
Based on both sampling events in 2021, groundwater elevations and contours show shallow groundwater flowing to the east and north.

Closure

The Drains Pond System has three proposed closure scenarios, clean closure, closure with CCR in place, and closure with CCR in place with an alternative cover system.

The first scenario is closure by removal. The impoundments will be cleaned, the liner system removed, and any contaminated soil under or around the impoundments will be removed. The site will be graded and seeded.

The second proposed scenario will be to close the west and center cells with CCR waste in place and close the east cell with the liner system in place. Since the Drains Pond System only contained bottom ash, the final cover can be two-feet thick. The cover system would be 18 inches of clay with a hydraulic conductivity of $1 \times 10^{-7}$ cm/sec with six inches of soil on top.

The third scenario would be an alternative evapotranspirative (ET) cover that has been previously used by Rainbow Energy at this location. The cover would be 30 inches of clay rich plant root zone soil with six inches of soil on top. A demonstration of the alternative cover was submitted with a certification from a professional engineer.

Upstream Raise 91, Upstream Raise 92, and Southeast Section 16 units have two proposed closure scenarios, closure with the cover system prescribed by the North Dakota Solid Waste Management rules or with an alternative cover design that is allowed within the rules. A demonstration of the alternative cover was submitted with a certification from a professional engineer.

Compliance History

The following items of noncompliance have been noted since 2015:

1. In January 2022, the Department issued a Letter of Apparent Noncompliance (LOAN) to Rainbow Energy for an incomplete Financial Assurance submittal. Rainbow Energy responded in February 2022 and the deficiency was closed.

No formal notices of violations have been issued to the facility.

Solid Waste Management Rules (NDAC Article 33.1-20)

NDAC Section 33.1-20-02.1-05. Record of notice.

The record of notice was submitted. It was recorded in McLean County on March 28, 2008.

NDAC Section 33.1-20-02.1-06. Property rights.

According to the Asset Purchase Agreement, dated June 30, 2021, and effective September 1, 2021, Rainbow Energy Center, LLC is the owner of Coal Creek Station including the property where the solid waste facility is located.
NDAC Section 33.1-20-03.1-01. Preapplication procedures.

This application does not involve new or expanded solid waste management units, so a preapplication is not required. The most recent preapplication for this area was submitted in February 2015 for an 11.5-acre expansion for the Drains Pond System. No issues were noted in the review of the expansion.

NDAC Section 33.1-20-03.1-02. Permit application procedures.

NDAC Subsections 33.1-20-03.1-02(1) – (3)

A completed and signed permit application form, including supporting documents, was submitted to the Department. The electronic copy was received by the Department on June 30, 2022, and the hard copy was received by the Department on July 5, 2022. A permit application processing fee of $23,000 was also submitted to the Department on July 1, 2022.

NDAC Subsection 33.1-20-03.1-02(4)

A public notice by the facility was published in the McLean County Independent on July 14, 2022 and on July 21, 2022.

NDAC Subsection 33.1-20-03.1-02(5)

Notification to the North Dakota Public Service Commission is not required as the facility is not proposing to dispose of coal processing wastes in a mining permit area.

NDAC Subsection 33.1-20-03.1-02(6)

Applications for a solid waste management unit or facility permit must include the following information where applicable:

a. A completed application form, subsection 1;

   A completed and signed permit application form, including supporting documents, was submitted to the Department. The electronic copy was received by the Department on June 30, 2022, and the hard copy was received by the Department on July 5, 2022. A permit application processing fee of $23,000 was also submitted to the Department on July 1, 2022.

b. A description of the anticipated physical and chemical characteristics, estimated amounts, and sources of solid waste to be accepted, including the demonstration required by North Dakota Century Code section 23.1-08-14;

   The application discusses the source, characteristics, and quantities of the CCR waste streams. The facility accepts, per year, approximately 93,000 tons of fly ash, 312,000 tons of bottom ash, 23,000 tons of air jig rejects, 190,000 tons of FGD material, 25,000 tons of ash from Spiritwood Station and 5,000 tons of construction and demolition waste for an annual total of 648,000 tons.
The Drains Pond System receives bottom ash, pulverizer rejects, and economizer ash that are sluiced out of the power plant process. The flow first enters the west pond, where most of the solids settle and are removed for beneficial reuse or disposal. The center pond further clarifies the process water from the west cell. The east cell is primarily a process water storage pond. The west and center cells are CCR impoundments, and the east cell is a non-CCR surface impoundment.

Upstream Raise 91 is a CCR impoundment that receives flue-gas desulfurization (FGD) material that is sluiced out of the power plant. FGD settles in Upstream Raise 91, and process water is returned to the plant.

Upstream Raise 92 is an inactive CCR impoundment that received FGD material and is in the process of dewatering prior to final closure.

The Southeast Section 16 Landfill and surface impoundment are used for disposal of solid CCR wastes such as fly ash from the facility and the Spiritwood Station and for inert waste, primarily construction and demolition waste from plant operations. The surface impoundment receives contact water and leachate from the landfill.

c. The site characterization of section 33.1-20-13-01 and a demonstration that the site fulfills the location standards of section 33.1-20-04.1-01;

The solid waste units in this permit modification previously demonstrated compliance with the general location standards and will be reviewed briefly here.

The units are not within the specific list of excluded areas:

- Wastes are not disposed in an aquifer
- Wastes are not in a wellhead protection area.
- 100-year flood plain.
- Areas prone to differential settlement.
- Channels, ravines, or steep topography
- Woody draws
- Critical habitats

The units are not within the specific list of potentially excluded areas:

- Over or adjacent to principal glacial drift aquifers.
- Close to a drinking water supply well
- Near surface water or wetland
- Within final cuts of a surface mine
- Near a state or national park
- Near pipelines not associated with the operation of the units.
d. Soil survey and segregation of suitable plant growth material;

Soil surveys and segregation of suitable plant growth material have not changed since the original site characterization. The most recent soil inventory was performed in 2011.

e. Demonstrations of capability to fulfill the general facility standards of section 33.1-20-04.1-02;

The application has detailed operating plans for each of the units that discusses how to keep the facility in compliance with Department rules and guidelines.

Training for operating and inspecting the units is described and Rainbow Energy has a certified operator at the facility.

Waste management units are identified by appropriate signs.

f. Facility engineering specifications adequate to demonstrate the capability to fulfill performance, design, and construction criteria provided by this article and enumerated in this subdivision;

1) Transfer stations and drop box facilities, section 33.1-20-04.1-06.

The requirements of this section are not applicable as the facility is not proposing a transfer station or a drop box facility.


The requirements of this section are not applicable as the facility is not proposing to manage any waste piles.

3) Resource recovery, section 33.1-20-04.1-08.

The requirements of this section are not applicable as the facility is not proposing any resource recovery activities.

4) Land treatment, section 33.1-20-04.1-09 and chapter 33.1-20-09.

The requirements of this section are not applicable as the facility is not proposing a land treatment facility.

5) Non-CCR surface impoundments, section 33.1-20-04.1-09 and chapter 33.1-20-08.1.

The requirements of this section are not applicable as the facility is not proposing any changes any non-CCR surface impoundments.
6) Any disposal, section 33.1-20-04.1-09.
   The proposed design has 25% slopes. The application estimated a soil loss in the final closed condition which is less than the maximum allowable rate of 2 tons per acre per year.

7) Inert waste landfill, chapter 33.1-20-05.1.
   The requirements of this section are not applicable as the facility is not proposing an inert waste landfill.

8) Municipal waste landfill, chapter 33.1-20-06.1.
   The requirements of this section are not applicable as the facility is not proposing a municipal waste landfill.

9) Industrial waste landfill, chapters 33.1-20-07.1 or 33.1-20-10.
   The requirements of this section are not applicable as the facility is not proposing an industrial waste landfill.

10) TENORM waste landfill, chapters 33.1-20-07.1 or 33.1-20-10 and 33.1-20-11
   The requirements of this section are not applicable as the facility is not proposing a TENORM waste landfill.

11) Special waste landfill, chapter 33.1-20-07.1;
   The requirements of this section are not applicable as the facility is not proposing a special waste landfill.

12) CCR unit, chapter 33.1-20-08;

Location Standards

Location standards for CCR units fall into three main categories: separation from the uppermost aquifer, placement in wetlands, and proximity to fault, seismic impact, or unstable areas.

The water table under the impoundments at this site can vary over time, but a separation from the base of the units and the top of the water table ranges from 1.5 to 2 feet. None of the units are in a wetland.

The location of the facility in North Dakota is greater than 200 feet from a Holocene era fault zone and is not in a seismic impact zone. None of the solid waste management units are in an unstable area due to soil conditions, geologic or geomorphologic features, or due to human activities.
The Location Restrictions Demonstrations for each solid waste management unit were certified by a North Dakota Registered Professional Engineer.

Design Criteria

The application contains detailed information that describes the location, design, and history of each surface impoundment. There are additional sections that discuss the periodic structural and safety surveys needed for each impoundment. Structural and safety surveys are repeated every five years. The initial surveys for these impoundments was in 2016 and the application contains the 2021 revision.

**Liner Type – Drains Pond System**

The East Cell was lined in 1993 with an upper 40-mil thickness high density polyethylene (HDPE) membrane and a 2-foot-thick layer of compacted clay. Construction quality assurance at the time of construction did not include as-placed hydraulic conductivity testing, but the clay used in the construction of this liner met or exceeded hydraulic conductivity requirements in other projects.

The Center and West Cells were lined in 2015. The Center Cell has two feet of protective cover over a 60-mil HDPE membrane. Under this is a 2-foot-thick layer of compacted clay with a hydraulic conductivity of $1 \times 10^{-7} \text{ cm/sec}$. The West Cell is used for bottom ash recovery and has a more protective liner system. From top to bottom, the liner consists of:

- 2-feet of protective cover
- 60-mil HDPE membrane
- Geocomposite drainage layer
- Geocomposite clay liner
- 60-mil HDPE membrane
- 2-feet of compacted clay, $1 \times 10^{-7} \text{ cm/sec}$ hydraulic conductivity

**Liner Type – Upstream Raise 91**

Upstream Raise 91 has two liner systems. It was lined in 1993 as Ash Pond 91 and expanded by 7 acres in 2016 by constructing an upstream raise over an adjacent solid waste management unit.

Ash Pond 91 was lined in 1993 with an upper 40-mil thickness high density polyethylene (HDPE) membrane and a 2-foot-thick layer of compacted clay. Construction quality assurance at the time of construction did not include as-placed hydraulic conductivity testing, but the clay used in the construction of this liner met or exceeded hydraulic conductivity requirements in other projects.
From top to bottom, the liner constructed in 2016 consists of:

- 60-mil HDPE membrane
- Geocomposite clay liner

This liner system is not the prescriptive design from NDAC Subdivision 33.1-20-08-04(1)(d) which is HDPE membrane over 2-feet of compacted clay. It does meet the requirements of NDAC Paragraph 33.1-20-08-04(2)(a)(1)(b) for an alternate composite liner. The Department approved the design in a 2015 permit modification. The current application also includes supporting information to demonstrate that the alternative liner design has a lower flux rate than the prescriptive liner system.

**Liner Type – Upstream Raise 92**

Upstream Raise 92 has two liner systems. 55 acres on the west side was lined in 1989 as Ash Pond 92 and 34 acres of composite liner was expanded in three phases between 2005 and 2008 by constructing an upstream raise over an adjacent solid waste management unit.

Ash Pond 92 was lined in 1989 with an upper 40-mil thickness HDPE membrane and a 2-foot-thick layer of compacted clay. Construction quality assurance provided a hydraulic conductivity of the compacted clay that did not exceed $1 \times 10^{-7} \text{ cm/sec}$ hydraulic conductivity.

From top to bottom, the liner constructed in 2016 consists of:

- 60-mil linear low-density polyethylene (LLDPE) membrane
- 1 foot of compacted clay, hydraulic conductivity $7.1 \times 10^{-8} \text{ cm/sec}$.
- 25 to 65 feet of CCR, estimated hydraulic conductivity $1.3 \times 10^{-7} \text{ cm/sec}$.
- 12 to 30 feet of natural clay, estimated hydraulic conductivity $2.4 \times 10^{-7} \text{ cm/sec}$.

This liner system is not the prescriptive design from NDAC Subdivision 33.1-20-08-04(1)(d) which is HDPE membrane over 2-feet of compacted clay. It does meet the requirements of NDAC Paragraph 33.1-20-08-04(2)(a)(1)(b) for an alternate composite liner. The current application includes supporting information to demonstrate that the alternative liner design has a lower flux rate than the prescriptive liner system.

The three impoundments in the Drains Pond Systems, Upstream Raise 91, and Upstream Raise 92 are all classified as Low Hazard Potential. Because all five CCR surface impoundments were
classified as low hazard, emergency action and contingency plans and annual meetings with local emergency response is not required. The calculated factor of safety for the required loading conditions exceeded the requirements.

The design elements for each solid waste management unit were certified by a North Dakota Registered Professional Engineer.

**Operating Criteria**

The operating criteria in this section cover four main sections: fugitive dust control, run-on and run-off control of water from storm events, capacity during flood events, and inspections.

For fugitive dust control, the initial processes are the collection of CCR by power plant equipment. The control plan also discusses control measures during transport and placement of CCR.

The stormwater section requires the control precipitation running onto a CCR unit or running off of a CCR unit during a twenty-four-hour, twenty-five-year storm event. For this location, this storm event would be 3.63 inches of precipitation. Rainbow Energy designed the finished slopes and water control structures at this facility to control run-off from a twenty-four-hour, one-hundred-year storm event, which would be 4.75 inches at this location.

The capacity calculations for flood events are based on a twenty-four-hour, one-hundred-year storm event since all the units are classified as low hazard. The Drains Pond System will rise four feet. Upstream Raise 91 level would rise one foot during this event. Upstream Raise 92, which is in the process of closure, would rise 3.8 feet.

The requirements for inspections are separated between landfill and impoundment units. All units require weekly inspections by a qualified person and annual inspections by a qualified professional engineer. Impoundments require an additional monthly inspection of instrumentation for the unit.

**Ground Water Monitoring and Corrective Action**

The requirements for CCR groundwater monitoring can be grouped into four main categories.

- The groundwater monitoring system
- Sampling, analysis, and statistical methods
- Detection and evaluation
- Assessment, corrective action, and remedies
The application describes the groundwater monitoring system. The facility exceeds the minimum requirements for the number of monitoring wells. CCR units are required to have at least one upgradient and three downgradient wells. Each unit at this facility has two upgradient and at least three downgradient wells.

The application describes the sampling, analysis, and quality assurance procedures for groundwater monitoring. Groundwater elevations and flow rates are described. Monitored parameters are those required for detection monitoring. Statistical methodology was described.

Parameter detection was discussed and was reviewed in the 2021 groundwater report, discussed earlier in this memo, see the Operation section of this memo. The application describes assessment, corrective actions, and remedies if problems are found.

Closure and Postclosure Care

The Drains Pond System has three proposed closure scenarios, clean closure, closure with CCR in place, and closure with CCR in place with an alternative cover system.

The first scenario is closure by removal. The impoundments will be cleaned, the liner system removed, and any contaminated soil under or around the impoundments will be removed. The site will be graded and seeded.

The second proposed scenario will be to close the west and center cells with CCR waste in place and close the east cell with the liner system in place. Since the Drains Pond System only contained bottom ash, the final cover can be two-feet thick. The cover system would be 18 inches of clay with a hydraulic conductivity of 1x10^-7 cm/sec with six inches of soil on top.

The third scenario would be an alternative evapotranspirative (ET) cover that has been previously used by Rainbow Energy at this location. The cover would be 30 inches of clay rich plant root zone soil with six inches of soil on top. A demonstration of the alternative cover was submitted with a certification from a professional engineer.

Upstream Raise 91, Upstream Raise 92, and Southeast Section 16 units have two proposed closure scenarios, closure with the cover system prescribed by the North Dakota Solid Waste Management rules or with an alternative cover design that is allowed within the rules. A demonstration of the alternative cover was submitted with a certification from a professional engineer.
The post-closure care plan discussed inspections, maintenance, groundwater monitoring, and planned property usage. The closure and post-closure plans were certified by a professional engineer.

The drawings for the cover system proposed for Upstream Raise 91, Upstream Raise 92, and the Southeast Section 16 units show the cross section for the alternative cover, but this same thickness would also apply to the prescribed cover system.

Recordkeeping, Notification, and Posting of Information to the Internet

Rainbow Energy's publicly available website is https://ccr.rainbowenergycenun.com/ and contains the information required by this section.

13) Municipal solid waste ash landfills, chapter 33.1-20-10;

The requirements of this section are not applicable as the facility is not proposing a municipal solid waste ash landfill.

14) Regulated infectious waste unit, chapter 33.1-20-12;

The requirements of this section are not applicable as the facility is not proposing a regulated infectious waste unit.

g. The plan of operation of section 33.1-20-04.1-03;

The application includes a plan of operation for the Drains Pond System and a separate plan of operation for the remaining units. The plans describe the site development, waste acceptance, general operations, monitoring and inspections, and contingencies.

h. Demonstration of the treatment technology of section 33.1-20-01.1-12;

The requirements of this section are not applicable as the facility is not proposing to treat waste.

i. The place where the operating record is or will be kept, section 33.1-20-04.1-04;

The operating record is kept at the power plant site near Underwood, ND.

j. Demonstration of capability to fulfill the groundwater monitoring, sections 33.1-20-08-06 or 33.1-20-13-02;

The application describes the groundwater monitoring system. The facility exceeds the minimum requirements for the number of monitoring wells. CCR units are required to have at least one upgradient and three downgradient
wells. Each unit at this facility has two upgradient and at least three downgradient wells.

The application describes the sampling, analysis, and quality assurance procedures for groundwater monitoring. Groundwater elevations and flow rates are described. Monitored parameters are those required for detection monitoring. Statistical methodology was described.

Parameter detection was discussed and was reviewed in the 2021 groundwater report, discussed earlier in this memo, see the Operation section of this memo. The application describes assessment, corrective actions, and remedies if problems are found.

k. Construction quality assurance and quality control;

The application describes construction for the CCR units and the CCR rules do not require specific references to construction quality assurance and quality control, but instead relies on professional engineer certifications. The application does reference previously approved Construction Quality Assurance guidelines and construction quality assurance and certification documents for the facility.

l. Demonstrations of capability to fulfill the closure standards, section 33.1-20.1-04.1-05 and otherwise provided by this article;

The Drains Pond System has three proposed closure scenarios, clean closure, closure with CCR in place, and closure with CCR in place with an alternative cover system.

The first scenario is closure by removal. The impoundments will be cleaned, the liner system removed, and any contaminated soil under or around the impoundments will be removed. The site will be graded and seeded.

The second proposed scenario will be to close the west and center cells with CCR waste in place and close the east cell with the liner system in place. Since the Drains Pond System only contained bottom ash, the final cover can be two-feet thick. The cover system would be 18 inches of clay with a hydraulic conductivity of $\text{1x}10^{-7}\text{cm/sec}$ with six inches of soil on top.

The third scenario would be an alternative evapotranspirative (ET) cover that has been previously used by Rainbow Energy at this location. The cover would be 30 inches of clay rich plant root zone soil with six inches of soil on top. A demonstration of the alternative cover was submitted with a certification from a professional engineer.

Upstream Raise 91, Upstream Raise 92, and Southeast Section 16 units have two proposed closure scenarios, closure with the cover system prescribed by the North Dakota Solid Waste Management rules or with an alternative cover design that is allowed within the rules. A demonstration of the alternative cover was submitted with a certification from a professional engineer.
The application provides detailed cost estimates and the total closure cost for each unit. Financial assurance is through a partially funded trust and a letter of credit. Total closure costs for closure of the units in this application are estimated to be $39,693,000. Post-closure costs are estimated to be $15,442,000.

m. Demonstrations of capability to fulfill the postclosure standards, section 33.1-20-04.1-09 and otherwise provided by this article; and

The post-closure care plan discussed inspections, maintenance, groundwater monitoring, and planned property usage. The closure and post-closure plans were certified by a professional engineer.

The application provides detailed cost estimates and the total post-closure cost for each unit. Financial assurance is through a partially funded trust and a letter of credit. Post-closure costs are estimated to be $15,442,000.

n. A disclosure statement as required by North Dakota Century Code section 23.1-08-17.

A disclosure statement that meets the requirements of this section was submitted to the Department on June 30, 2022.

Site Specific Conditions

It is proposed that the following conditions be included from the previous permit:

H.1. The facility is approved to accept the following wastes:

- Coal combustion residuals from Coal Creek Station
- Coal combustion residuals from Spiritwood Energy Plant
- Inert Waste from Coal Creek Station
- Other wastes identified in the facility’s approved waste acceptance plan.

(NDAC Subsection 33.1-20-07.1-01(2))

H.2. The Permittee shall obtain and analyze a representative sample of leachate/contact water contained in any leachate collection or accumulation or system, sump and/or other accumulation area, any surface impoundment and stormwater pond at the same frequency and for the parameters as in the facility’s approved groundwater monitoring program. The analytical results shall be submitted to the Department with the groundwater monitoring report. (NDAC Paragraph 33.1-20-04.1-09(3)(e)(2))

H.3. Sequential closure of solid waste disposal units shall be implemented as described in the approved closure plan. (NDAC Subdivision 33.1-20-04.1-03(1)(g), NDAC Subsection 33.1-20-04.1-05(2), NDAC Subdivision 33.1-20-04.1-05(5)(d) and NDAC Subdivision 33.1-20-08-07(3)(b))
The largest approved open area is 261.7 acres before sequential partial closure must be initiated. (NDAC Subparagraph 33.1-20-08-07(3)(b)(1)(e))

Conclusion

Based on the submitted application and items discussed above, Rainbow Energy Center, LLC has shown that the modification meets the requirements of the North Dakota Solid Waste Management Rules. It is proposed that the Department grant Rainbow Energy Center, LLC a permit with the conditions listed in Permit 0033. The proposed permit length is for a period of 4 years because the current permit is set to expire on July 7, 2026, and this permit addresses new requirements for CCR facilities.

CRH:DAT:TTP
Attachment