

Jon Niermann, *Chairman*  
Emily Lindley, *Commissioner*  
Bobby Janecka, *Commissioner*  
Erin E Chancellor, *Interim Executive Director*



## TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

*Protecting Texas by Reducing and Preventing Pollution*

March 27, 2023

Laurie Gharis  
Texas Commission on Environmental Quality  
Office of the Chief Clerk, MC-105  
P.O. Box 13087  
Austin, Texas 78711-3087

Re: Application Uranium Energy Corporation  
WDW Permit Nos. WDW423 and WDW424  
TCEQ Docket No. 2022-1553-WDW

Dear Ms. Gharis:

I have enclosed the following documents to be included in the administrative record for the above-referenced case.

- Draft Permit WDW423
- Draft Permit WDW424
- Technical Summary and Executive Director's Preliminary Decision
- Compliance History

Sincerely,

A handwritten signature in cursive script that reads "Diane Goss".

Diane Goss  
Staff Attorney  
TCEQ Environmental Law Division



Permit No. WDW423

This permit supersedes  
and replaces Permit  
No. WDW423 issued  
May 25, 2010.

Texas Commission on  
Environmental Quality  
Austin, Texas

Permit to Conduct  
Class I Underground Injection  
Under Provisions of Texas Water Code  
Chapter 27 and Texas Health and Safety  
Code Chapter 401

I. Permittee

Uranium Energy Corp.  
500 N Shoreline Blvd. Ste. 800N  
Corpus Christi, Texas 78401

II. Type of Permit

Initial \_\_\_\_\_ Renewal  Amended

Commercial \_\_\_\_\_ Noncommercial

Hazardous \_\_\_\_\_ Nonhazardous

Onsite  Offsite \_\_\_\_\_

Authorizing Disposal of Waste from Captured Facility \_\_\_\_\_

Authorizing Disposal of Waste from Off-site Facilities Owned by Owner/Operator \_\_\_\_\_

III. Nature of Business

In-situ uranium mining.

CONTINUED on Pages 2 through 6

The permittee is authorized to conduct injection in accordance with limitations, requirements, and other conditions set forth herein. This permit is granted subject to the rules and orders of the Commission, and the laws of the State of Texas. The permit will be in effect for ten years from the date of approval or until amended or revoked by the Commission. If this permit is appealed and the permittee does not commence any action authorized by this permit during judicial review, the term will not begin until judicial review is concluded.

DATE ISSUED:

\_\_\_\_\_  
For the Commission

IV. General Description and Location of Injection Activity

The disposal well will be used to dispose of nonhazardous wastes and by-product material as defined in §11.e(2) of the Atomic Energy Act and §401.003(3)(B) of the Texas Health & Safety Code, derived from in-situ uranium mining. The facility will be located at 14869 N US Hwy 183 Yorktown, Texas 78164. The well will be located approximately 1,900 feet from the east line and 1,900 feet from the south line of the Peter Gass Survey, A-129, Latitude 28°51'53" North, Longitude 97°21'26.6" West, Goliad County, Texas. The injection zone is within the Frio and Vicksburg Formations at the approximate depths of 2,800 to 3,590 feet below ground level (BGL). The authorized injection interval is within the Vicksburg Formation at the approximate depths of 3,200 to 3,590 feet BGL.

V. Drilling and Completion Requirements

- A. The drilling and completion of the well shall be done in accordance with 30 Texas Administrative Code (TAC) Section (§) 331.62, the plans and specifications of the permit application, and the following conditions.
- B. The permittee shall set and cement surface casing to a minimum depth of 1,850 feet BGL, and long string casing into or through the injection zone in order to properly protect each underground source of drinking water (USDW) or freshwater aquifer.
- C. Mechanical integrity shall be demonstrated prior to authorization by the Executive Director to conduct injection operations.
- D. Any changes to the plans and specifications in the original application shall be approved in writing by the Executive Director that said changes provide protection standards equivalent to or greater than the original design criteria.

VI. Character of the Waste Streams

- A. Industrial nonhazardous waste authorized to be injected by this permit shall consist solely of the following waste streams:
  1. Waste generated by the permittee:
    - a. Recovered rainwater from bermed areas;
    - b. Process wastewater from reverse osmosis reject;
    - c. Restoration groundwater;
    - d. Wash down from maintenance and housekeeping;
    - e. Accidental upsets; and
    - f. Dissolved salts and low concentrations of uranium and radium.
  2. Other associated wastes such as groundwater and rainfall contaminated by the above authorized wastes, spills of the above authorized wastes, and wash waters and solutions used in cleaning and servicing the waste disposal well system equipment which are compatible with the permitted waste streams, injection zone and well materials.

3. Wastes generated during well construction or closure of the well and associated facilities that are compatible with permitted the waste streams, injection zone and well materials.
- B. The injection of wastes is limited to those wastes authorized in Provision VI.A. above, into the Frio and Vicksburg Formations within the injection zone between the approximate depths of 2,800 to 3,590 feet BGL.
- C. The pH of injected waste streams shall be greater than 5.0 and less than 9.0.
- D. Except when authorized by the Executive Director, the specific gravity of injected fluids shall be greater than 0.997 and less than 1.05 as measured at 68°F.

VII. Waste Streams Prohibited From Injection

Unless authorized by Provision VI.A., the following waste streams are prohibited:

- A. Hazardous wastes as defined under 40 CFR §261.3(a) through (d), issued pursuant to the Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendments, which are regulated by the Commission as authorized by the United States Environmental Protection Agency (EPA), including but not limited to any listed hazardous waste or a waste derived from the treatment, storage or disposal of a listed hazardous waste;
- B. Any by-product material as defined by Texas Health and Safety Code §401.003(3)(A);
- C. Any low-level radioactive waste as defined by Texas Health and Safety Code §401.004;
- D. Any naturally occurring radioactive material (NORM) waste as defined by Texas Health and Safety Code §401.003(26); and
- E. Any oil and gas NORM waste as defined by Texas Health & Safety Code §401.003(27).

VIII. Operating Parameters

The well shall be operated in compliance with the requirements of 30 TAC Chapters 305, 331, and 335; the plans and specifications of the permit application; and the following conditions:

- A. Surface injection pressure shall not cause pressure in the injection zone to:
  1. initiate any new fractures or propagate existing fractures in the injection zone;
  2. initiate new fractures or propagate existing fractures in the confining zone; or
  3. cause movement of fluid out of the injection zone that may contaminate USDWs, and fresh water.

- B. The operating surface injection pressure shall not exceed values as tabulated below:

Specific Gravity at 68°F and Surface Pressure (g/cm)	Maximum Surface Injection Pressure (psig)
0.997 to 1.005	761
1.005 to 1.05	698

- C. For WDW423 and WDW424 the maximum cumulative injection rate shall not exceed 200 gallons per minute (gpm).
- D. The cumulative volume of wastewater injected into WDW423 and WDW424 shall not exceed 8,640,000 gallons per month (30 days), or 105,192,000 gallons per year, based on the cumulative injection rate of 200 gpm.
- E. A positive pressure of at least 100 psig over tubing injection pressures shall be maintained in the tubing-casing annulus for the purpose of leak detection. Temporary deviations from this requirement which are a part of normal well operations are authorized but may not exceed 15 minutes in duration. For 15 minutes after the pressure differential drops below 100 psig, the permittee shall conduct troubleshooting and proceed to restore a minimum 100 psig pressure differential. If a minimum 100 psig pressure differential cannot be achieved within 15 minutes, the permittee shall commence shut-in procedures on the well and notify the Texas Commission on Environmental Quality (TCEQ) in writing within 48 hours. The permittee may continue to operate the well under flow conditions that maintain a minimum 100 psig pressure differential.
- F. The permittee shall notify the Executive Director at least 24 hours prior to commencing any workover which involves taking the injection well out of service. Approval by the Executive Director shall be obtained before the permittee may begin work. Notification shall be in writing and shall include plans for the proposed work. The Executive Director may grant an exception in accordance with 30 TAC §331.63(i) when immediate action is required to comply with 30 TAC §331.63(b). Completion of the well outside the approved injection interval, by perforation of casing, setting of screen, or establishment of open hole section, requires that the permitted injection interval be changed according to 30 TAC §331.62(a)(3)(B) to include the depths of well completion. Pressure control equipment shall be installed and maintained during workovers which involve the removal of tubing.

IX. Monitoring and Testing Requirements

- A. Monitoring and testing shall be in compliance with the requirements of 30 TAC §305.125, §331.64, the plans and specifications of the permit application, and the following conditions.

- B. The integrity of the long string casing, injection tubing, and annular seal shall be tested by means of an approved pressure test with a liquid or gas annually and whenever there has been a well workover. The integrity of the cement within the injection zone shall be tested by means of an approved radioactive tracer survey annually. A radioactive tracer survey may be required after workovers that have the potential to damage the cement within the injection zone.
  - C. The pressure buildup in the injection zone shall be monitored annually, including at a minimum, a shutdown of the well for a sufficient time to conduct a valid observation of the pressure fall-off curve.
  - D. A temperature log, noise log, oxygen activation log or other approved log is required at least once every five years to test for fluid movement along the entire borehole.
  - E. A casing inspection, casing evaluation, or other approved log shall be run whenever the owner or operator conducts a workover in which the injection string is pulled, unless the Executive Director waives this requirement due to well construction or other factors which limit the test's reliability, or based upon the satisfactory results of a casing inspection log run within the previous five years. The Executive Director may require that a casing inspection log be run every five years if there is sufficient reason to believe the integrity of the long string casing of the well may be adversely affected by naturally occurring or man-made events.
  - F. Injection fluids shall be tested in accordance with 30 TAC §331.64(b) and the approved waste analysis plan.
  - G. The pH and specific gravity of the injected waste shall be monitored continuously at a minimum frequency of at least once every 24 hours and whenever the waste stream changes.
  - H. Corrosion monitoring of well materials shall be conducted quarterly and in accordance with 30 TAC §331.64(g). Test materials shall be the same as those used in the wellhead, injection tubing, packer, and long string casing, and shall be continuously exposed to the waste fluids except when the well is taken out of service.
  - I. The permittee shall ensure that all waste analyses used for waste identification or verification and other analyses for environmental monitoring have been performed in accordance with methods specified in the current editions of United States Environmental Protection Agency (EPA) SW-846, ASTM standards or other methods accepted by the TCEQ. The permittee shall have a Quality Assurance/Quality Control (QA/QC) program that is consistent with EPA SW-846 and the TCEQ Quality Assurance Project Plan.
- X. Record Keeping Requirements
- The permittee shall keep complete and accurate records as required by 30 TAC Chapters 305, 331, and 335.

XI. Financial Assurance for Well Closure

In accordance with 30 TAC Chapter 37, §305.154(a)(9), and §§331.142-144, the permittee shall secure and maintain financial assurance, in a form approved by the Executive Director, in the amount of \$198,400 (cost estimate prepared October 2021 in current dollars). Adjustments to the cost estimates for plugging and abandonment in current dollars, and to financial assurance based thereon, shall be made in accordance with 30 TAC §331.143(d) and Chapter 37. Financial assurance shall be obtained at least 60 days prior to the commencement of drilling of the well.

XII. Additional Requirements

- A. The base of the wellhead shall be enclosed by a diked, impermeable pad or sump to protect the ground surface from spills and releases. Any liquid collected shall be disposed of in an appropriate manner.
- B. Acceptance of this permit by the permittee constitutes an acknowledgment and agreement that the permittee will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- C. This permit is subject to further orders and rules of the Commission. In accordance with the procedures for amendments and orders, the Commission may incorporate into permits already granted, any condition, restriction, limitation, or provision reasonably necessary for the administration and enforcement of Texas Water Code, Chapter 27 and Texas Health and Safety Code Chapter 401.
- D. This permit does not convey any property rights of any sort, nor any exclusive privilege, and does not become a vested right in the permittee.
- E. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of state or local law or regulations.
- F. The following rules are incorporated as terms and conditions of this permit by reference:
  - 1. 30 TAC Chapter 305, Consolidated Permits;
  - 2. 30 TAC Chapter 331, Underground Injection Control; and
  - 3. 30 TAC Chapter 335, Industrial Solid Waste and Municipal Hazardous Waste;
- G. The express incorporation of the above rules as terms and conditions of this permit does not relieve the permittee of an obligation to comply with all other laws or regulations which are applicable to the activities authorized by this permit.
- H. Incorporated Application Materials. This permit is based on, and the permittee shall follow, the plans and specifications contained in the Class I Underground Injection Control Application dated January 15, 2020, March 17, 2020, May 10, 2021, August 9, 2021, October 6, 2021 and December 22, 2021 which are hereby approved subject to the terms of this permit and any other orders of the TCEQ.

These materials are incorporated into this permit by reference as if fully set out herein. Any and all revisions to these elements shall become conditions of this permit upon the date of approval by the Commission.

- I. All pre-injection units servicing this well must be authorized under TCEQ Radioactive Material License RO6064 under 30 TAC Chapter 336, Radioactive Substance Rules.





Permit No. WDW424

This permit supersedes  
and replaces Permit  
No. WDW424 issued  
May 25, 2010.

Texas Commission on  
Environmental Quality  
Austin, Texas

Permit to Conduct  
Class I Underground Injection  
Under Provisions of Texas Water Code  
Chapter 27 and Texas Health and Safety  
Code Chapter 401

I. Permittee

Uranium Energy Corp.  
500 N Shoreline Blvd. Ste. 800N  
Corpus Christi, Texas 78401

II. Type of Permit

Initial \_\_\_\_\_ Renewal  Amended

Commercial \_\_\_\_\_ Noncommercial

Hazardous \_\_\_\_\_ Nonhazardous

Onsite  Offsite \_\_\_\_\_

Authorizing Disposal of Waste from Captured Facility \_\_\_\_\_

Authorizing Disposal of Waste from Off-site Facilities Owned by Owner/Operator \_\_\_\_\_

III. Nature of Business

In-situ uranium mining.

CONTINUED on Pages 2 through 6

The permittee is authorized to conduct injection in accordance with limitations, requirements, and other conditions set forth herein. This permit is granted subject to the rules and orders of the Commission, and the laws of the State of Texas. The permit will be in effect for ten years from the date of approval or until amended or revoked by the Commission. If this permit is appealed and the permittee does not commence any action authorized by this permit during judicial review, the term will not begin until judicial review is concluded.

DATE ISSUED:

\_\_\_\_\_  
For the Commission

IV. General Description and Location of Injection Activity

The disposal well will be used to dispose of nonhazardous wastes and by-product material as defined in §11.e(2) of the Atomic Energy Act and §401.003(3)(B) of the Texas Health & Safety Code, derived from in-situ uranium mining. The facility will be located at 14869 N US Hwy 183 Yorktown, Texas 78164. The well will be located approximately 2,100 feet from the east line and 2,700 feet from the south line of the Peter Gass Survey, A-129, Latitude 28°52'1.8" North, Longitude 97°21'28.1" West, Goliad County, Texas. The injection zone is within the Frio and Vicksburg Formations at the approximate depths of 2,800 to 3,590 feet below ground level (BGL). The authorized injection interval is within the Vicksburg Formation at the approximate depths of 3,200 to 3,590 feet BGL.

V. Drilling and Completion Requirements

- A. The drilling and completion of the well shall be done in accordance with 30 Texas Administrative Code (TAC) Section (§) 331.62, the plans and specifications of the permit application, and the following conditions.
- B. The permittee shall set and cement surface casing to a minimum depth of 1,850 feet BGL, and long string casing into or through the injection zone in order to properly protect each underground source of drinking water (USDW) or freshwater aquifer.
- C. Mechanical integrity shall be demonstrated prior to authorization by the Executive Director to conduct injection operations.
- D. Any changes to the plans and specifications in the original application shall be approved in writing by the Executive Director that said changes provide protection standards equivalent to or greater than the original design criteria.

VI. Character of the Waste Streams

- A. Industrial nonhazardous waste authorized to be injected by this permit shall consist solely of the following waste streams:
  1. Waste generated by the permittee:
    - a. Recovered rainwater from bermed areas;
    - b. Process wastewater from reverse osmosis reject;
    - c. Restoration groundwater;
    - d. Wash down from maintenance and housekeeping;
    - e. Accidental upsets; and
    - f. Dissolved salts and low concentrations of uranium and radium.
  2. Other associated wastes such as groundwater and rainfall contaminated by the above authorized wastes, spills of the above authorized wastes, and wash waters and solutions used in cleaning and servicing the waste disposal well system equipment which are compatible with the permitted waste streams, injection zone and well materials.

3. Wastes generated during well construction or closure of the well and associated facilities that are compatible with permitted the waste streams, injection zone and well materials.
- B. The injection of wastes is limited to those wastes authorized in Provision VI.A. above, into the Frio and Vicksburg Formations within the injection zone between the approximate depths of 2,800 to 3,590 feet BGL.
- C. The pH of injected waste streams shall be greater than 5.0 and less than 9.0.
- D. Except when authorized by the Executive Director, the specific gravity of injected fluids shall be greater than 0.997 and less than 1.05 as measured at 68°F.

VII. Waste Streams Prohibited From Injection

Unless authorized by Provision VI.A., the following waste streams are prohibited:

- A. Hazardous wastes as defined under 40 CFR §261.3(a) through (d), issued pursuant to the Resource Conservation and Recovery Act and the Hazardous and Solid Waste Amendments, which are regulated by the Commission as authorized by the United States Environmental Protection Agency (EPA), including but not limited to any listed hazardous waste or a waste derived from the treatment, storage or disposal of a listed hazardous waste;
- B. Any by-product material as defined by Texas Health and Safety Code §401.003(3)(A);
- C. Any low-level radioactive waste as defined by Texas Health and Safety Code §401.004;
- D. Any naturally occurring radioactive material (NORM) waste as defined by Texas Health and Safety Code §401.003(26); and
- E. Any oil and gas NORM waste as defined by Texas Health & Safety Code §401.003(27).

VIII. Operating Parameters

The well shall be operated in compliance with the requirements of 30 TAC Chapters 305, 331, and 335; the plans and specifications of the permit application; and the following conditions:

- A. Surface injection pressure shall not cause pressure in the injection zone to:
  1. initiate any new fractures or propagate existing fractures in the injection zone;
  2. initiate new fractures or propagate existing fractures in the confining zone; or
  3. cause movement of fluid out of the injection zone that may contaminate USDWs, and fresh water.

- B. The operating surface injection pressure shall not exceed values as tabulated below:

Specific Gravity at 68°F and Surface Pressure (g/cm)	Maximum Surface Injection Pressure (psig)
0.997 to 1.005	761
1.005 to 1.05	698

- C. For WDW423 and WDW424 the maximum cumulative injection rate shall not exceed 200 gallons per minute (gpm).
- D. The cumulative volume of wastewater injected into WDW423 and WDW424 shall not exceed 8,640,000 gallons per month (30 days), or 105,192,000 gallons per year, based on the cumulative injection rate of 200 gpm.
- E. A positive pressure of at least 100 psig over tubing injection pressures shall be maintained in the tubing-casing annulus for the purpose of leak detection. Temporary deviations from this requirement which are a part of normal well operations are authorized but may not exceed 15 minutes in duration. For 15 minutes after the pressure differential drops below 100 psig, the permittee shall conduct troubleshooting and proceed to restore a minimum 100 psig pressure differential. If a minimum 100 psig pressure differential cannot be achieved within 15 minutes, the permittee shall commence shut-in procedures on the well and notify the Texas Commission on Environmental Quality (TCEQ) in writing within 48 hours. The permittee may continue to operate the well under flow conditions that maintain a minimum 100 psig pressure differential.
- F. The permittee shall notify the Executive Director at least 24 hours prior to commencing any workover which involves taking the injection well out of service. Approval by the Executive Director shall be obtained before the permittee may begin work. Notification shall be in writing and shall include plans for the proposed work. The Executive Director may grant an exception in accordance with 30 TAC §331.63(i) when immediate action is required to comply with 30 TAC §331.63(b). Completion of the well outside the approved injection interval, by perforation of casing, setting of screen, or establishment of open hole section, requires that the permitted injection interval be changed according to 30 TAC §331.62(a)(3)(B) to include the depths of well completion. Pressure control equipment shall be installed and maintained during workovers which involve the removal of tubing.

IX. Monitoring and Testing Requirements

- A. Monitoring and testing shall be in compliance with the requirements of 30 TAC §305.125, §331.64, the plans and specifications of the permit application, and the following conditions.

- B. The integrity of the long string casing, injection tubing, and annular seal shall be tested by means of an approved pressure test with a liquid or gas annually and whenever there has been a well workover. The integrity of the cement within the injection zone shall be tested by means of an approved radioactive tracer survey annually. A radioactive tracer survey may be required after workovers that have the potential to damage the cement within the injection zone.
  - C. The pressure buildup in the injection zone shall be monitored annually, including at a minimum, a shutdown of the well for a sufficient time to conduct a valid observation of the pressure fall-off curve.
  - D. A temperature log, noise log, oxygen activation log or other approved log is required at least once every five years to test for fluid movement along the entire borehole.
  - E. A casing inspection, casing evaluation, or other approved log shall be run whenever the owner or operator conducts a workover in which the injection string is pulled, unless the Executive Director waives this requirement due to well construction or other factors which limit the test's reliability, or based upon the satisfactory results of a casing inspection log run within the previous five years. The Executive Director may require that a casing inspection log be run every five years if there is sufficient reason to believe the integrity of the long string casing of the well may be adversely affected by naturally occurring or man-made events.
  - F. Injection fluids shall be tested in accordance with 30 TAC §331.64(b) and the approved waste analysis plan.
  - G. The pH and specific gravity of the injected waste shall be monitored continuously at a minimum frequency of at least once every 24 hours and whenever the waste stream changes.
  - H. Corrosion monitoring of well materials shall be conducted quarterly and in accordance with 30 TAC §331.64(g). Test materials shall be the same as those used in the wellhead, injection tubing, packer, and long string casing, and shall be continuously exposed to the waste fluids except when the well is taken out of service.
  - I. The permittee shall ensure that all waste analyses used for waste identification or verification and other analyses for environmental monitoring have been performed in accordance with methods specified in the current editions of United States Environmental Protection Agency (EPA) SW-846, ASTM standards or other methods accepted by the TCEQ. The permittee shall have a Quality Assurance/Quality Control (QA/QC) program that is consistent with EPA SW-846 and the TCEQ Quality Assurance Project Plan.
- X. Record Keeping Requirements
- The permittee shall keep complete and accurate records as required by 30 TAC Chapters 305, 331, and 335.

XI. Financial Assurance for Well Closure

In accordance with 30 TAC Chapter 37, §305.154(a)(9), and §§331.142-144, the permittee shall secure and maintain financial assurance, in a form approved by the Executive Director, in the amount of \$198,400 (cost estimate prepared October 2021 in current dollars). Adjustments to the cost estimates for plugging and abandonment in current dollars, and to financial assurance based thereon, shall be made in accordance with 30 TAC §331.143(d) and Chapter 37. Financial assurance shall be obtained at least 60 days prior to the commencement of drilling of the well.

XII. Additional Requirements

- A. The base of the wellhead shall be enclosed by a diked, impermeable pad or sump to protect the ground surface from spills and releases. Any liquid collected shall be disposed of in an appropriate manner.
- B. Acceptance of this permit by the permittee constitutes an acknowledgment and agreement that the permittee will comply with all the terms and conditions embodied in the permit, and the rules and other orders of the Commission.
- C. This permit is subject to further orders and rules of the Commission. In accordance with the procedures for amendments and orders, the Commission may incorporate into permits already granted, any condition, restriction, limitation, or provision reasonably necessary for the administration and enforcement of Texas Water Code, Chapter 27 and Texas Health and Safety Code Chapter 401.
- D. This permit does not convey any property rights of any sort, nor any exclusive privilege, and does not become a vested right in the permittee.
- E. The issuance of this permit does not authorize any injury to persons or property or an invasion of other property rights, or any infringement of state or local law or regulations.
- F. The following rules are incorporated as terms and conditions of this permit by reference:
  - 1. 30 TAC Chapter 305, Consolidated Permits;
  - 2. 30 TAC Chapter 331, Underground Injection Control; and
  - 3. 30 TAC Chapter 335, Industrial Solid Waste and Municipal Hazardous Waste;
- G. The express incorporation of the above rules as terms and conditions of this permit does not relieve the permittee of an obligation to comply with all other laws or regulations which are applicable to the activities authorized by this permit.
- H. Incorporated Application Materials. This permit is based on, and the permittee shall follow, the plans and specifications contained in the Class I Underground Injection Control Application dated January 15, 2020, March 17, 2020, May 10, 2021, August 9, 2021, October 6, 2021 and December 22, 2021 which are hereby approved subject to the terms of this permit and any other orders of the TCEQ.

These materials are incorporated into this permit by reference as if fully set out herein. Any and all revisions to these elements shall become conditions of this permit upon the date of approval by the Commission.

- I. All pre-injection units servicing this well must be authorized under TCEQ Radioactive Material License R06064 under 30 TAC Chapter 336, Radioactive Substance Rules.

## TECHNICAL SUMMARY AND EXECUTIVE DIRECTOR'S PRELIMINARY DECISION

### Description of Application

Applicant: Uranium Energy Corp. (UEC)

Underground Injection Control (UIC) Permit Nos. WDW423 and WDW424

Location: The proposed UEC facility will be located at 14869 N US Hwy 183 Yorktown, Goliad County, Texas 78164.

WDW423 will be located approximately 1,900 feet from the east line and 1,900 feet from the south line of the Peter Gass Survey, A-129, Latitude 28°51'53" North, Longitude 97°21'26.6" West.

WDW424 will be located approximately 2,100 feet from the east line and 2,700 feet from the south line of the Peter Gass Survey, A-129, Latitude 28°52'1.8" North, Longitude 97°21'28.1" West.

General: The applicant proposes to operate an in-situ uranium mining facility. Wastes will be nonhazardous and generated on-site. WDW423 and WDW424 have not been drilled at this time.

Request: UEC submitted an application to the Texas Commission on Environmental Quality (TCEQ) dated January 15, 2020 for permit renewals for the construction of underground injection wells for disposal of industrial nonhazardous waste and for amendment to the permits to reduce the maximum allowable surface injection pressure. The application was received on January 23, 2020.

Authority: The proposed permits are required by the Injection Well Act, Texas Water Code §27.011. Draft permits have been prepared in accordance with applicable requirements of 30 Texas Administrative Code (TAC) Chapters 281, 305 and 331, which have been adopted under the authority of the Texas Water Code, Chapters 5 and 27.

### Technical Information

The permit renewal and amendment application has been evaluated in accordance with 30 TAC Chapters 305, 331 and 335. Evaluation of the structural and stratigraphic geology indicates that the UEC facility is located in a geologically suitable location for injection well operations. UEC has demonstrated that the injection zone is of sufficient permeability, porosity, thickness and areal extent to receive the injected waste streams. The confining zone was shown to be laterally continuous and free of transecting, transmissive faults or fractures to prevent the migration of fluids into underground sources of drinking water (USDW).

Records of all known artificial penetrations of the injection and confining zones, occurring within a 2½ mile radius from the future disposal wells, have been reviewed. Information submitted demonstrates all wells were properly plugged or constructed to prevent endangerment to a USDW. The Railroad Commission of Texas issued its non-endangerment of oil and gas reservoir letter dated September 27, 2021 after its staff



completed a technical review of the permit application. Ambient monitoring and mechanical integrity tests of the well are required on an annual basis.

Under the existing permit, the operating surface injection pressure shall not exceed 976 pounds per square inch gauge (psig) when the specific gravity of the waste stream is 0.997 to 1.005 or 914 psig when the specific gravity is 1.005 to 1.05. The pH of injected waste streams shall be greater than 5.0 and less than 9.0. For WDW423 and WDW424 the maximum injection rate shall not exceed 200 gallons per minute (gpm) cumulative. The cumulative volume of wastewater injected into WDW423 and WDW424 shall not exceed 8,640,000 gallons per month (30 days), or 105,192,000 gallons per year.

The permitted injection zone is the Frio and Vicksburg Formations from 2,800 to 3,590 feet below ground level (BGL). The authorized injection interval is the Vicksburg Formation from 3,200 to 3,590 feet BGL.

The Jasper Aquifer is the lowermost underground source of drinking water in the vicinity of the well locations. Its base occurs at depths of approximately 1,750 feet BGL in this area.

The proposed renewal permits include the following:

- A. standard provisions for construction, operation and closure of the subject injection wells including requirements for testing, monitoring, and reporting;
- B. standard provisions to establish and maintain financial assurance to provide for proper facility closure;
- C. amendment in the following manner:
  - a. reduce the maximum allowable surface injection pressure from 976 to 761 psig when the injected waste stream specific gravity is 0.997 to 1.005; and
  - b. reduce the maximum allowable surface injection pressure from 914 to 698 psig when the injected waste stream specific gravity is 1.005 to 1.05.
- D. updated permit provisions to incorporate current standard language and requirements into the permits; and
- E. removal of pre-injection units because regulations no longer require permitting of PIUs.

#### Process for Reaching a Final Decision and Opportunities for Public Participation

Once the proposed permits are drafted, they are sent to the TCEQ Office of the Chief Clerk for public notice. Mailed and newspaper notice of the application and executive director's preliminary decision are provided in accordance with 30 TAC §39.651(d) with instructions for submitting public comments and requesting a public meeting. Written public comments and requests for a

**TECHNICAL SUMMARY**

WDW423 and WDW423

March 28, 2022

public meeting must be submitted to the Office of the Chief Clerk within 30 days from the date of publication of the newspaper notice.

The executive director will consider public comments in making a final decision on the application. The TCEQ will hold a public meeting if the executive director determines that there is a significant degree of public interest in the application or if requested by a local legislator. After the deadline for public comments, the executive director will consider the comments and prepare a response to all relevant and material or significant public comments. The response to comments will include the executive director's decision on the application and will provide instructions for requesting a contested case hearing or reconsideration of the executive director's decision.

A contested case hearing will only be granted based on disputed issues of fact that are relevant and material to the commission's decision on the application on issues that were raised during the public comment period and not withdrawn. The executive director may issue final approval of the application unless a timely contested case hearing request or request for reconsideration is filed. If a timely hearing request or request for reconsideration is filed, the executive director will not issue final approval of the permits and will forward the application and request to the TCEQ Commissioners for their consideration at a scheduled commission meeting. If hearing requests are granted, the hearings will be conducted by the State Office of Administrative Hearings. Decisions regarding the permits may be reconsidered in response to a Motion for Rehearing or a Motion for Reconsideration and by appeal to a District Court in Travis County.

Preliminary Decision

The executive director has made a preliminary decision that the proposed permits, if issued, meet all statutory and regulatory requirements.

The proposed permits do not authorize variances or alternatives to required standards. Parties have requested a hearing on the proposed permit renewals.

Prepared by:

*Fred Duffy*

---

Fred Duffy, P.G., Project Manager  
UIC Permits Section  
Radioactive Materials Division

Reviewed by:

*Carol J. Dye*

---

Carol J. Dye, P.G., Manager  
UIC Permits Section  
Radioactive Materials Division



# Compliance History Report

Compliance History Report for CN603228461, RN105304802, Rating Year 2021 which includes Compliance History (CH) components from September 1, 2016, through August 31, 2021.

**Customer, Respondent, or Owner/Operator:** CN603228461, Uranium Energy Corp. **Classification:** HIGH **Rating:** 0.00

---

**Regulated Entity:** RN105304802, GOLIAD PROJECT **Classification:** HIGH **Rating:** 0.00

---

**Complexity Points:** 5 **Repeat Violator:** NO

---

**CH Group:** 14 - Other

---

**Location:** 14869 N US HWY 183 YORKTOWN TX 78164  
13.3 MI N ON US 183 FROM CITY OF GOLIAD TO FM 1961 THEN 2 MI E TO SITE GOLIAD, TX, GOLIAD COUNTY

---

**TCEQ Region:** REGION 14 - CORPUS CHRISTI

---

**ID Number(s):**

**UNDERGROUND INJECTION CONTROL PERMIT UR03075** **UNDERGROUND INJECTION CONTROL PERMIT UR03075PAA1**

**UNDERGROUND INJECTION CONTROL PERMIT WDW424** **UNDERGROUND INJECTION CONTROL PERMIT WDW423**

**URANIUM LICENSE R06064** **AIR NEW SOURCE PERMITS REGISTRATION 86882**

---

**Compliance History Period:** September 01, 2016 to August 31, 2021 **Rating Year:** 2021 **Rating Date:** 09/01/2021

**Date Compliance History Report Prepared:** March 28, 2022

---

**Agency Decision Requiring Compliance History:** Permit - Issuance, renewal, amendment, modification, denial, suspension, or revocation of a permit.

---

**Component Period Selected:** September 01, 2016 to August 31, 2021

---

**TCEQ Staff Member to Contact for Additional Information Regarding This Compliance History.**

**Name:** Fred Duffy **Phone:** (512) 239-6891

---

**Site and Owner/Operator History:**

- 1) Has the site been in existence and/or operation for the full five year compliance period? YES
- 2) Has there been a (known) change in ownership/operator of the site during the compliance period? NO

**Components (Multimedia) for the Site Are Listed in Sections A - J**

**A. Final Orders, court judgments, and consent decrees:**

N/A

**B. Criminal convictions:**

N/A

**C. Chronic excessive emissions events:**

N/A

**D. The approval dates of investigations (CCEDS Inv. Track. No.):**

- Item 1 November 06, 2017 (1435656)
- Item 2 June 23, 2021 (1696877)

**E. Written notices of violations (NOV) (CCEDS Inv. Track. No.):**

A notice of violation represents a written allegation of a violation of a specific regulatory requirement from the commission to a regulated entity. A notice of violation is not a final enforcement action, nor proof that a violation has actually occurred.

N/A

**F. Environmental audits:**

N/A

**G. Type of environmental management systems (EMSs):**

N/A

**H. Voluntary on-site compliance assessment dates:**

N/A

**I. Participation in a voluntary pollution reduction program:**

N/A

**J. Early compliance:**

N/A

**Sites Outside of Texas:**

N/A