

NEBRASKA DEPARTMENT OF ENVIRONMENT AND ENERGY PERMIT FOR CLASS I NON-
HAZARDOUS WASTE INJECTION WELLS
UNDERGROUND INJECTION CONTROL (UIC) PROGRAM

This permit is issued in compliance with the provisions of the Nebraska Environmental Protection Act (Neb. Rev. Stat. § 81-1501, 81-1502 through 81-1510 *et. seq.* as amended to date), the Nebraska Administrative Procedure Act (as amended to date), the Rules and Regulations promulgated pursuant to these Acts, and the Nebraska Department of Environment and Energy Title 122, Rules and Regulations for Underground Injection and Mineral Production Wells. The facility and injection well(s) identified in this permit are authorized to inject, test, and monitor, and are subject to the limitations, requirements, prohibitions and conditions set forth herein. This permit regulates and controls the release of pollutants in the injection(s) authorized herein. This permit does not relieve permittees of other duties and responsibilities under the Nebraska Environmental Protection Act, as amended, or established by regulations promulgated pursuant thereto.

UIC Permit No.: **NE0212139**
NDEE ID: **57952**
Permittee: **Kugler Oil Company**
Facility Name: **Kugler Oil Company Class I Non-Hazardous Waste Injection Well**
Facility Location: **71748 Railroad Avenue, Culbertson, NE 69024**
Facility Mailing Address: **PO Box 1748, McCook, NE 69001**
Latitude/Longitude: **40.219654 N, 100.816223 W**
Legal Description: **NW ¼ of the SW ¼, Section 16, Township 3 N, Range 31 W, Hitchcock County, NE**
Receiving Formation(s): **Cedar Hills Formation (2245-2275 feet bgs)**
Effective Date: **DRAFT**
Expiration Date: **January 13, 2029**

It is the responsibility of the permittee to read and understand all provisions of this permit.

Pursuant to a Delegation Memorandum dated November 23, 2020, and signed by the Director, the undersigned hereby executes this document on behalf of the Director.

Signed this ____ day of _____, _____

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Sue Dempsey
Drinking Water and Groundwater Division Administrator

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Part I. Specific Permit Conditions

A. General Description of Permitted Activity

1. This permit is for a Class I Non-Hazardous Waste Injection Well for Kugler Oil Company, located in the NW¹/₄ of the SW¹/₄, Section 16, Township 3 North, Range 31 West, Hitchcock County, Nebraska.
2. This permit is for Class I Non-Hazardous Waste Injection Well associated with the Kugler Oil Company facility. Kugler Oil Company manufactures and distributes liquid fertilizer products including ammonium thiosulfate, potassium thiosulfate, ammonium polyphosphate, liquid slow release nitrogen, and various blends of fertilizer mixes. Four non-hazardous wastestreams make up the overall injection fluid; cooling tower discharge, brine water from three water softeners, storm water from the tank farm area of the facility, and treated wastewater from the development of Potassium Thiosulfate (KTS) fertilizer. In addition, a one-time disposal of non-hazardous wastewater from an evaporation pond on site will occur following issuance of the permit. The approximate composition and volume of each wastestream was provided by the applicant.
3. Expected average daily volume of fluid to be injected is approximately 27,400 gallons, and expected maximum daily volume of fluid to be injected is approximately 144,000 gallons. Future additional flows from Kugler Oil Company expansions could result in higher annual flows, however this would require prior notice from Kugler Oil Company to the NDEE and possible modification to the existing permit. The wastewater will be pumped into the injection well, and introduced into the Cedar Hills Formation at depths approximately 2,245 to 2,275 feet below ground elevation.
4. Continuous recording devices will be installed to monitor injection pressure, flow rate and volume, and the pressure on the annulus between the tubing and the long string casing. The injection pressure at the wellhead plus the hydrostatic pressure will not exceed the fracture pressure of the injection zones. The Mechanical Integrity of the injection well will be demonstrated at least once every two years during the life of the well as required by Nebraska Title 122, Chapter 18.
5. This permit does not authorize any discharge to the land surface or to the surface waters of the State of Nebraska. Water that is to be discharged to the surface will be regulated under a separate permit.

B. Notice of Intent to Operate

Prior to injection activity, a notice of intent must be submitted to the Director, which contains the following information:

1. A well completion report for the injection well.
2. A diagram of the as-built construction of the injection well.
3. A scaled map of the entire property on which the injection is proposed.
4. Physical and Chemical data needed to calculate or demonstrate the integrity and validity of the injection well operation. Such data include but may not be limited to:
 - a. The physically determined values for Transmissivity and Hydraulic Conductivity of the injection formation(s).
 - b. The physical determination of the Total Dissolved Solids (TDS) content of the injection formation(s).
 - c. The physically measured values for the temperature and formation pressure of the injection formation(s).
 - d. Delineation of the actual confinement interval established from the designation of recognized formation log tops.
5. Calculations for: Pressure increase due to injection, Theis Equation calculations, radius of fluid displacement, maximum surface injection pressure, injection formation(s) fracture pressure, anticipated surface injection pressure, and radius of pressure response for the injection well and receiving formations utilizing the physically measured and determined values in parts (B) (1.), (2.), and (3.) above.
6. A pre-calculated amount of cement necessary to complete the well along with well records demonstrating the presence of adequate cement to prevent fluid migration behind casing.
7. The results of testing which demonstrate the mechanical integrity for the injection well by:
 - a. Setting a packer immediately above the completion interval and a packer or well head at ground surface. The space between the two will then be pressurized to at least 125% of maximum operating pressure specified in Part II, C of this permit. The pressure must be held for a period of at least twenty (20) minutes maintaining 90% of the original pressure to pass the test.
 - b. OR, Putting on an air tight well head and pressurizing the well with air to force the water column down the casing to a level where the air pressure is equal to 125% of the maximum operating pressure. The air pressure will be maintained and observed for a period of twenty (20) minutes maintaining 90% of the pressure to pass the test.
8. An evaluation of the compatibility of the proposed injection fluids with fluids in the proposed injection horizons (under prevailing physical conditions).
9. Demonstration of adequate monitoring equipment in order to acquire monitoring data required in this permit.
10. In addition, the Permittee shall have available on site for review upon request any other pertinent information which they have compiled, such as:
 - a. All available geological and geophysical logging and testing on the well;
 - b. The results of the formation testing program;
 - c. Compatibility of injected material with fluids in the injection zones and the minerals in both the injection zones and the confining zone; or,
 - d. Information that the Director may require in consultation with the permittee.

C. Duration of Permit

This UIC Class I Non-Hazardous Waste Injection permit shall be issued for 10 years. If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. An application to renew this permit shall be filed with the NDEE at least one hundred eighty (180) days prior to its expiration date.

Part II. Injection Limitations, Monitoring, Reporting, and Testing Requirements

- A. The permittee is authorized to inject non-hazardous liquid waste consisting of cooling tower discharge, brine water from three water softeners, storm water from the tank farm area of the facility, treated wastewater from the development of Potassium Thiosulfate (KTS) fertilizer, and a one-time disposal of non-hazardous wastewater from an evaporation pond on site will occur following issuance of the permit at the Kugler Oil Company located in Culbertson, NE. Injection of wastes generated at other facilities, domestic wastewater, or other wastes not specifically permitted is prohibited.
- B. Such injection shall be controlled, limited, and monitored by the permittee as specified in this permit. All monitoring reports are to be submitted monthly to the Nebraska Department of Environment and Energy no later than 28 days after the last day of the month for which the monitoring data are being reported. Monitoring reports and other information required by this permit shall be directed to:

Nebraska Department of Environment and Energy
 UIC Program, Groundwater Section
 P.O. Box 98922
 Lincoln, Nebraska 68509

- C. Operational parameters and limitations required for this permit are listed below.

Table 2a: Operational Parameter Limits and Monitoring Requirements				
Parameters	Units	Discharge Limits	Monitoring Frequency	Sample Type
Injection Pressure	psig	190	Continuous	Continuous Recording Device
Maximum Daily Injection Volume	gpd	Report	Continuous	Continuous Recording Device
Maximum Daily Injection Rate	gpm	Report	Continuous	Continuous Recording Device
Average Daily Injection Rate (Annualized)	gpm	Report	Continuous	Continuous Recording Device
Minimum Allowable Operating Annulus Pressure	psig	150 Above Injection Pressure	Continuous	Gauge or Continuous Recording Device
Injection Fluid Temperature	°C	Report	Daily	Gauge
Annulus Seal Pot Liquid Level	in	Report	Daily	Gauge
Abbreviations: psig – pounds per square inch gauge; gpd – gallons per day; gpm – gallons per minute; °C – degrees Celsius; in – inches				

Table 2b: Operational Parameter Limits and Monitoring Requirements				
Parameters	Units	Discharge Limits	Monitoring Frequency	Sample Type
Arsenic	mg/l	5.0	Weekly	Monthly Composite
Ammonium	mg/l	16.0	Monthly	Monthly Composite
Barium	mg/l	100.0	Weekly	Monthly Composite
Bicarbonate	mg/l	22,000.0	Monthly	Monthly Composite
Cadmium	mg/l	1.0	Weekly	Monthly Composite
Calcium	mg/l	Report	Monthly	Monthly Composite
Chloride	mg/l	52,000.0	Monthly	Monthly Composite
Chromium	mg/l	5.0	Weekly	Monthly Composite
Lead	mg/l	5.0	Weekly	Monthly Composite
Mercury	mg/l	0.2	Weekly	Monthly Composite
Nitrate	mg/l	1,500.0	Monthly	Monthly Composite
pH	S.U.	5.0 – 9.5 ^(a)	Weekly	Monthly Composite
Radium	pCi/l	5,000.0	Monthly	Monthly Composite
Selenium	mg/l	1.0	Weekly	Monthly Composite
Silver	mg/l	5.0	Weekly	Monthly Composite
Sodium	mg/l	42,000.0	Monthly	Monthly Composite
Sulfate	mg/l	20,000.0	Monthly	Monthly Composite
Total Dissolved Solids	mg/l	15,000.0	Monthly	Monthly Composite
Uranium	mg/l	25.0	Monthly	Monthly Composite
Vanadium	mg/l	100.0	Monthly	Monthly Composite

(a) pH analysis shall occur within 15 minutes of sample collection.
 Abbreviations mg/l – milligrams per liter; mmhos/cm – millimhos per centimeter; grains/gallon – grains per gallon; S.U. standard units; pCi/l – picocuries per liter

The injection of wastewater may be accompanied with the addition of an anti-scalent and/or biocide to inhibit precipitates and scale from developing in the injection well.

Samples taken in compliance with the injection requirements specified above shall be taken at the following locations:

Injection Fluid: sampling outfall between the processing plant and injection well.

Samples shall be analyzed in accordance with Part IX.Y of this permit.

- D.** The monthly average, maximum, and minimum values taken from the continuous recordings for the month for injection flow rate and volume, wellhead annulus pressure and wellhead injection pressure, shall be reported in the monthly monitoring report submitted to NDEE.
- E.** The daily fluid level in the seal pot and the injection fluid temperature shall be measured daily and graphed and reported in the monthly report submitted to the NDEE.
- F.** The monitoring of pressure buildup in the injection zones and the static fluid level shall be conducted annually including, at a minimum, a shutdown of the well for a time sufficient to record the formation

pressure in the injection interval, and conduct a valid observation of the pressure fall-off curve for the injection interval. A plan for this test, and an anticipated test date, shall be submitted to the NDEE for review and approval prior to conducting the test. The test shall not commence until approval of the test plan has been obtained from the NDEE. The test results and interpretation of this test shall be submitted to the NDEE within thirty (30) days of completion of the test.

G. The following shall also be reported to NDEE by the permittee:

1. A well treatment plan or workover plan shall be submitted to the NDEE for review and approval prior to commencement of a well treatment or workover. No well treatment or workover shall commence until the permittee has obtained approval for the well treatment or workover plan from the NDEE. Any well treatment procedures used, including those associated with normal maintenance and malfunction correction, and all well workovers shall be reported to the NDEE for review within thirty (30) days of completion.
2. Immediate notification to the NDEE of all spills or releases associated with the operation of the injection well or its appurtenances.
3. The results and interpretation of mechanical integrity tests and any other tests or logs of the injection well or injection zones within thirty (30) days of completion.
4. A written description and explanation of any noncompliance with operating limitations as specified in this permit for wellhead injection pressure, injection flow volume, or injection limits occurring during the month being reported shall be submitted with the monthly monitoring report.
5. When the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the NDEE, the permittee shall submit such facts or corrected information to the NDEE, postmarked within five (5) calendar days of becoming aware of the circumstances.

Part III. Mechanical Integrity Testing

A mechanical integrity test (MIT) to check for internal mechanical integrity shall be conducted at least once every two (2) years. The internal MIT is to check for significant leakage in the casing, tubing, and packer. Whenever the NDEE believes that because of a downhole problem, the continued use of the well constitutes a threat to human health, or the fresh and/or useable waters or the soils of the State, or the release of injected fluid into an unauthorized zone is occurring, the Permittee shall be required to immediately cease injection and conduct a MIT. If determined necessary by the NDEE, a MIT shall be conducted when there has been a well workover.

No MIT work shall commence until approval of the MIT has been obtained from the NDEE. A MIT plan shall be submitted to the NDEE for review and approval prior to conducting any MIT. The internal MIT shall be witnessed by the NDEE. The results and interpretation of a MIT shall be submitted to the NDEE within thirty (30) days of test completion. If the well fails a MIT, the requirements of Section IV. Part B. of this permit shall be implemented by the Permittee.

Part IV. Annulus Pressure Decline, Annulus Liquid Loss, Anomalous Operational Data, Loss of Mechanical Integrity

- A.** If the annulus pressure declines 20% or more below normal operating pressure, or loss of annulus liquid indicating a loss of mechanical integrity occurs, the Permittee shall notify the NDEE within twenty-four (24) hours of becoming aware of the circumstances, and the Permittee shall immediately investigate and identify the cause of the annulus pressure decline, annulus liquid loss, or anomalous operational data. The results of this investigation shall be reported to the NDEE within twenty-four (24) hours of completion. If the well appears to be lacking mechanical integrity, the Permittee shall:
1. Immediately cease injection of waste fluids.
 2. Take all steps required by the NDEE to determine the presence or absence of mechanical integrity. If the well is determined to have mechanical integrity, injection may resume after the Permittee has obtained authorization from the NDEE to resume injection.

B. If loss of mechanical integrity is determined pursuant to Part III of this permit, the Permittee shall:

1. Immediately cease injection of waste fluids.
2. Notify the NDEE within twenty-four (24) hours of the determination.
3. Take all steps determined necessary by the NDEE to determine whether there may have been a release of injection fluids into any unauthorized zone. This may include the need for an external MIT to check for significant fluid movement through vertical channels adjacent to the wellbore. If there is evidence there may have been a release into an unauthorized zone, the Permittee shall verbally notify the NDEE within twenty-four (24) hours of determination. A written notice shall also be provided to the NDEE within five (5) days of the determination including a report describing all aspects of the release.
4. Comply with any immediate corrective or remedial action specified by the NDEE. If it is determined necessary by the NDEE, the Permittee shall submit to the NDEE a remediation and corrective action plan and implementation schedule for review and approval. Work shall not commence until approval of the remediation and corrective action plan has been obtained from the NDEE.
5. Restore and demonstrate mechanical integrity to the NDEE. A plan for any well workover or mechanical integrity test shall be submitted to the NDEE (see Part III).
6. Resume injection only upon authorization from the NDEE.

Part V. Plugging and Abandonment

- A.** The well shall be plugged and abandoned upon reaching the end of its useful life or when determined necessary by the NDEE to protect human health, or the fresh and/or usable waters or soils of the state. Plugging and abandonment work shall not commence until approval of the plugging and abandonment plan has been obtained from NDEE. The Permittee shall notify the NDEE at least sixty (60) days prior to plugging and abandonment of a well. In addition to the notice, the Permittee shall submit a plugging and abandonment plan to the NDEE for review and approval. The Permittee shall conform to all plugging and abandonment requirements of State and Federal regulations and the NDEE. The well shall be plugged in a manner that will not allow the movement of fluids into or between sources of underground sources of drinking water (USDWs) or allow the movement of injected fluids out of the injection zones. The report of plugging and abandonment and related information shall be submitted to the NDEE within thirty (30) days after the completion of the plugging operation.
- B.** The Permittee shall reclaim all disturbed land surfaces to conserve the soil and water resources in the affected are of the injection well. The USDA – Natural Resource Conservation Service (NRCS) shall be consulted for technical assistance in reclaiming the land surface. Topsoil shall be reapplied to the natural contoured surface of the land, and the soils re-seeded with an appropriate seed mixture.

Part VI. Financial Responsibility for Plugging and Abandonment

The Permittee shall maintain financial responsibility and financial resources to close, plug, and abandon the injection well and appurtenances in a manner required by the NDEE. This requirement includes the costs for reclaiming the disturbed land surfaces associated with the injection well. An abandonment plan that includes financial responsibility documents shall be prepared and submitted by the Permittee. The Permittee shall demonstrate financial assurance through the use of an Irrevocable Escrow Agreement in the amount of \$42,300.00. Financial assurance documents shall be revisited on an annual basis or when required by the NDEE.

Part VII. Construction Requirements

The Permittee shall construct any wells that fall under this permit in accordance with the requirements of Nebraska Title 122 Rules and Regulations for Underground Injection and Mineral Production Wells, Chapter 17.

- A.** The well shall be cased and cemented such that: 1) injected fluids and fluids in the injection zones or other formation fluids do not cause deterioration of the water quality of fresh and/or useable water zones, 2) the loss of fresh and/or useable water due to downward migration is prevented, 3) the release of injected fluids into an unauthorized zone is prevented, and 4) corrosion will be prevented from compromising these measures.

B. Borehole, casing, tubing, and cement specifications for the injection well:

Table 3: Specifications for the injection well					
Bore Hole Diameter (in)	Casing or Tubing Diameter and Material (in)	Weight (lbs/ft)	Casing Seat Depth (bgs, ft)	Type of Cement and Additives	Minimum Number of Sacks of Cement
13 ½	8 ⅝	24.0	172.19	Class A	320
7 ⅞	5 ½	17.0	2345.5	Class A 60/40 Poz	100 375
Packer Type			Packer Seating Depths (bgs, ft)		
Baker A3 Lok-Set			2247, 2282		
Abbreviations: in – inches; bgs – below ground surface; ft – feet; lbs – pounds; N/A – not applicable					

C. Type of Annulus Fluid: Village of Culbertson water containing biocide, and scaling and corrosion inhibitors.

Minimum Operation Annulus Pressure: 150 PSIG above injection pressure.

D. Injection fluids will be introduced into the Cedar Hills Formation through perforations in the casing from 2245 to 2275 feet. All depths indicated have been measured from ground level at the injection well.

Part VIII. Spill Prevention and Containment

The injection well will be equipped with high level sensing instruments to detect water levels as a means of spill prevention. Lined ponds will be used for spill containment. The lined ponds must be constructed as per the requirements of NDEE Title 123, and must be approved prior to construction and operation.

Part IX. Standard Permit Conditions

A. Duty to Comply

The Permittee shall comply with all conditions of this permit, Federal and State laws and regulations. Any permit noncompliance constitutes a violation of the appropriate act or regulations and is grounds for enforcement actions or for permit termination, revocation and reissuance, modification, or denial of permit renewal application.

B. Duty to Reapply

If the Permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the Permittee must apply for and obtain a new permit. An application to renew this permit shall be filed with the NDEE at least one hundred eighty (180) days prior to its expiration date.

C. Duty to Cease or Reduce Activity

It shall not be an acceptable defense for a Permittee in an enforcement action to declare or claim that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

D. Duty to Mitigate

The Permittee shall take all reasonable steps to minimize or correct any adverse impact to the environment resulting from noncompliance with this permit, including additional monitoring as necessary to determine

the nature and impact of a noncomplying discharge or injection, and the necessary actions to be taken based on monitoring.

E. Proper Operation and Maintenance

The Permittee shall at all times properly operate and maintain all facilities and systems of monitoring, treatment, and control (and related appurtenances) which are installed or used by the Permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance includes effective performance, adequate funding, adequate operator staffing and training, and adequate laboratory and process controls, including appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems when necessary to maintain compliance with the conditions of the permit.

F. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege, nor does it authorize any injury to private property or any invasion of a person's rights, nor any infringement of Federal, State, or local laws or regulations.

G. Duty to Provide Information

The Permittee shall furnish to the NDEE within a reasonable time, any information which the NDEE may request to determine whether cause exists for modifying, revoking, reissuing or terminating the permit, or to determine compliance with this permit. The Permittee shall also furnish to the NDEE, upon request, copies of reports and information required to be kept by this permit.

H. Inspection and Right of Entry

The Permittee shall allow the Director, or any authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

- a. Enter upon the Permittee's premises where a regulated facility or activity is located or conducted, or where records are kept under the conditions of this permit;
- b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
- c. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit;
- d. Sample or monitor for the purpose of assuring permit compliance, or as otherwise authorized by appropriate Rules and Regulations, any substances or parameters at any location.

I. Samples, Measurements, and Records

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. The Permittee shall retain records of all monitoring information, including calibration and maintenance records, and all continuous monitoring instrumentation records, copies of all reports required by this permit, and records of all data used to complete the application for this permit, for a period of at least five (5) years from the date of sample, measurement, report, or application. This period may be extended by request of the NDEE at any time.
- c. The Permittee shall retain records concerning the nature and composition of all injected fluids until five (5) years after the completion of any plugging and abandonment procedures. The NDEE may require the owner or operator to deliver the records to the NDEE at the conclusion of the retention period.
- d. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;

- iv. The individual(s) who performed the analyses;
- v. The analytical sampling and preservation techniques or methods used; and
- vi. The results of such analysis.

J. Signatory Requirements

All permit applications, reports required by this permit, or other information requested by the NDEE shall be signed and certified in accordance with the requirements of Nebraska Title 122 Rules and Regulations for Underground Injection and Mineral Production Wells, Chapter 15.

K. Monitoring and Records

All monitoring requirements shall be in accordance with those stated in Nebraska Title 122 Rules and Regulations for Underground Injection and Mineral Production Wells, Chapter 20.

Representative Sampling: Samples and measurements taken as required herein shall be representative of all the volume and nature of the monitored discharge or injection. All samples shall be taken at the monitoring points specified in this permit unless otherwise specified. Monitoring points shall not be changed without notification to and the approval of the NDEE.

L. Transfer of Permit

This permit is not transferable to any person except after notice and approval by the NDEE. The NDEE may require modification or revocation and reissuance of the permit to change the name of the Permittee and incorporate such other requirements as may be necessary under the appropriate Rules and Regulations. In some cases, modification and reissuance is mandatory. The existing Permittee shall notify the NDEE at least ninety (90) days in advance of the proposed transfer date. The notice shall include a written agreement between the existing and new Permittee containing a specific date for the transfer of permit responsibility, coverage and liability between them, and demonstrate that financial requirement will be met by the new Permittee. The new Permittee shall submit to the NDEE at least ninety (90) days prior to the proposed transfer date a new permit application including the financial assurance documents guaranteeing that resources are available to properly plug, abandon, and reclaim the well and surrounding affected lands.

M. Emergency Reporting

The Permittee shall verbally report to the NDEE any noncompliance which may endanger human health or the environment within twenty-four (24) hours of becoming aware of the circumstances. A written submission shall also be provided, postmarked within five (5) calendar days of the time the Permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, corrective action taken, and if the noncompliance has not been corrected the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance. The Permittee shall comply with any corrective or remedial action required by the NDEE.

N. Operation Requirements

- a. The operator of the well shall not allow the movement of fluid into any formation or aquifer not permitted to receive fluid by this permit. The operator shall have the burden of showing that the requirements of this paragraph are met.
- b. If any water quality monitoring of an aquifer indicates the movement of any contaminant into any formation or aquifer not permitted to receive fluids by this permit, the operator shall take such action as required by the NDEE including, but not limited to, taking the well out of service, closure of the well, and/or plugging and abandonment of the well.

O. Permit Modifications and Terminations

After notice and opportunity for a hearing, this permit may be modified, revoked and reissued, or terminated in whole or in part during its term for cause as provided, but not limited to those set forth in Nebraska Title 122, Chapter 30. The Permittee shall furnish to the NDEE, within a reasonable amount of time, any information which the NDEE may request to determine whether cause exists for modifying,

revoking and reissuing, or terminating this permit or to determine compliance with this permit. The Permittee shall also furnish, upon request, copies of all records required to be kept by this permit.

P. Severability

The provisions of this permit are severable, and if any provision of this permit and any circumstance is held invalid, the application of such provision to other circumstances and the remainder of the permit shall not be affected as stated in Nebraska Title 122, Chapter 36.

Q. Change in Injectate

Any facility changes or process modifications which may result in new, different, or altered injectate shall be reported to the NDEE at least one hundred eighty (180) days before such changes.

R. Anticipated Noncompliance

If for any reason, the Permittee will be unable to comply with permit requirements, the Permittee shall give advance notice to the NDEE. The notice shall include the reason for the anticipated noncompliance and a description of steps taken to reduce, eliminate, and prevent reoccurrence of the noncompliance. Upon receiving proper notice from the Permittee, the NDEE may grant for a specified time a temporary waiver to a permit requirement for the purpose of testing and treating the well, or for conducting a well workover, or to protect human health or the environment.

S. Plugging and Abandonment

Plugging and abandonment shall be done in accordance with Nebraska Title 122, Chapter 35. Prior to abandonment the Permittee shall notify the Director seven days before commencing plugging and abandonment. Plugging shall conform to the following standards:

- a. A plugging and abandonment plan shall be submitted to the NDEE for approval. The Permittee shall follow the plugging and abandonment plan as approved by the Director.
- b. Prior to abandoning the injection well, the well shall be plugged with cement or other approved plugging material in a manner which will prohibit the movement of fluids out of the injection zones into or between underground sources of drinking water.

T. Financial Responsibility

The Permittee shall secure and maintain in full force and effect at all times a form of financial security acceptable to the Director. This financial security will provide for proper plugging and abandonment of the injection well, and surface reclamation. This permit shall not become effective until the permittee secures a form of financial security acceptable to the Director in the appropriate amount.

U. Permit Modification and Reopening

This permit may be modified, reopened, revoked, reissued, or terminated for causes by the NDEE (Nebraska Title 122, Chapters 30 and 31) or upon filing a request by the Permittee. The Permittee shall furnish to the Director any information which the Director may request to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit. Such information may also be requested by the Director to determine compliance with the permit. Upon request by the Director, the Permittee shall also furnish copies of records required to be kept by the permit.

V. Confidential Information

Any information to be treated as confidential must be clearly identified by the Permittee at the time it is submitted to the Department. Information determined by the Director to be confidential shall be managed in accordance with Nebraska Title 122, Chapter 28.

W. Averaging of Measurements

Calculations for all limitations which require averaging shall utilize an arithmetic mean unless otherwise specified by the Director in this permit.

X. Test Procedures

Test procedures for the analysis of pollutants that are required to be monitored by this permit, unless otherwise specified by the Director, shall conform to the latest edition of the following references:

- a. Standard Methods for the Examination of Water and Wastewaters, 19th Edition, 1995, American Public Health Association. New York, NY 10019.
- b. A.S.T.M. Standards, Part 11, American Society for Testing and Materials, Philadelphia, PA 19103.
- c. Methods for Chemical Analysis of Water and Wastes, March 1979, Environmental Protection Agency Water Quality Office, Analytical Quality Control Laboratory NERC, Cincinnati, Ohio 45268.

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