

KANSAS UNDERGROUND INJECTION
CONTROL PERMIT
CLASS I HAZARDOUS WASTE INJECTION WELL

Pursuant to the provisions of Kansas Statutes Annotated (65-164, 65-165, 65-166, 65-170g and 65-171d) and Kansas Administrative Regulations (Chapter 28, Article 46),

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|----------------------------------|---|
| Owner/Operator: | Occidental Chemical Corporation |
| Owner/Operator Mailings Address: | P.O. Box 12283 Wichita, KS 67277 |
| Facility Name: | Occidental Chemical Corporation (Wichita Plant) |
| Facility Location: | 6200 South Ridge Road Wichita, Kansas |
| Facility Telephone Number: | 316.524.4211 |
| Well Identification: | #11 |
| Well Location: | Latitude: 37.58676, Longitude: -97.42104 |
| Injection Interval: | Arbuckle and Simpson |

is authorized to inject only liquid wastes from this facility in accordance with the construction, operation, monitoring and reporting requirements as set forth herein.

The permittee shall comply with all conditions in this permit, federal and state regulations governing Class I hazardous waste injection wells and the requirements of the Kansas Department of Health and Environment (KDHE).

This permit shall become effective November 18, 2016 and expires November 18, 2026.

FACILITY DESCRIPTION:

Occidental Chemical Corporation is a chloroalkali and chlorosolvent manufacturing facility. Wastewaters from this facility consist of stormwater runoff, contaminated groundwater and process wastewater. The wastewater consists primarily of sodium, calcium and magnesium chloride brines which vary in pH. The average chloride concentration of these brines is approximately 20,000 ppm. Trace organic compounds, soluble in brines, are also present. The fluids to be injected are considered hazardous by definition in the Resource Conservation and Recovery Act and K.S.A. 65-3430 et seq. and regulations adopted thereunder.



Secretary, Kansas Department of Health and Environment

11/18/16

Date

I. INJECTION LIMITATIONS, MONITORING, REPORTING AND TESTING REQUIREMENTS

- A. The permittee is authorized to inject liquid waste generated at this facility consisting of stormwater runoff, contaminated groundwater, and process wastewater originating from manufacturing activities as specified in the application for this permit with the additional limitation that all injected waste shall be limited to wastes classified as non-hazardous until such time as a modification of the existing site exemption from the prohibition on the land disposal of hazardous waste or a new exemption has been granted by USEPA that includes Well #11 in the approval.
- B. Such injection shall be controlled, limited and monitored by the permittee as specified in this permit. All monitoring data required to be submitted to KDHE shall be submitted no later than twenty-eight (28) days after the last day of the month for which the monitoring data are being reported. All monitoring data required for reports shall be submitted on forms prescribed by KDHE. Monitoring reports shall be originally signed. The monitoring reports submitted to KDHE shall be originally signed. Monitoring reports and other information required by this permit shall be directed to:

Bureau of Water
Geology & Well Technology Section
Kansas Department of Health and Environment
1000 SW Jackson Ste., Suite 420
Topeka, Kansas 66612-1367

C.

| Injection and Operational Parameters | Injection or Parameter Limitation | Measurement or Analysis Frequency | Reporting Requirement | Sample or Measurement Type |
|---|--|-----------------------------------|-----------------------|-------------------------------------|
| Injection Pressure (inches mercury or pounds per square inch gauge) | 20 psig, no pump pressure allowed | Continuous | Monthly | Gauge & Continuous Recording Device |
| Maximum Daily Injection Volume (gallons per day) | 864,000 gpd *** | Continuous | Monthly | Continuous Recording Device |
| Injection Rate (gallons per minute) | Monitor | Continuous | Monthly | Continuous Recording Device |
| Minimum Allowable Annulus Pressure (pounds per square inch gauge) | 130 psig | Continuous | Monthly | Gauge & Continuous Recording Device |
| Seal Pot Liquid Level (inches) | Liquid level must be visible in sight glass | Daily | Monthly | Sight Glass |
| pH (standard Units) | Monitor | Weekly | Monthly | Grab |
| Temperature (°F) | Monitor | Weekly | Monthly | Grab |
| Specific Gravity | 13 week running volume weighted average range of 1.01 to 1.08 at | Weekly | Monthly | Grab |

| Injection and Operational Parameters | Injection or Parameter Limitation | Measurement or Analysis Frequency | Reporting Requirement | Sample or Measurement Type |
|--|-----------------------------------|-----------------------------------|-----------------------|----------------------------|
| | 77°F/77°F | | | |
| Volatile Organic Compounds (mg/l)* | Monitor Concentration** | Weekly | Monthly | Composite |
| Pesticides and Hexachlorinated Compounds (mg/l)* | Monitor Concentration** | Weekly | Monthly | Composite |
| Phenol and Chlorinated Phenol Compounds (mg/l)* | Monitor Concentration** | Weekly | Monthly | Composite |
| Antimony (mg/l)* | Monitor Concentration** | Weekly | Monthly | Composite |
| Total Chromium (mg/l)* | Monitor Concentration** | Weekly | Monthly | Composite |

* See Attachment II for individual constituents for which the wastestream shall be analyzed and reported.

** The quantity of the chemical group injected for the calendar year for all the Class I injection wells at this facility combined shall be reported annually to KDHE in tons/year. This report shall be submitted to KDHE no later than thirty (30) days after the last day of the calendar year for which the information is being reported. For all the Class I UIC injection wells at this facility combined, the injected quantity of Volatile Organic Compounds is limited to 202.5 tons/year, Pesticides and Hexachlorinated Compounds is limited to 3.0 tons/year, Phenol and Chlorinated Phenol Compounds is limited to 62.5 tons/year, Antimony is limited to 10.0 tons/year, and Chromium is limited to 2.5 tons/year. The quantity resulting from the recovered contaminated groundwater is not to be included in calculating the annual quantity injected. The limit on quantity injected for the calendar year does not apply to that quantity resulting from the recovered contaminated groundwater.

*** The combined injection volume for all of the Class I injection wells located at this facility shall not exceed 2,520,000 gallons per day.

D. The permittee shall continue with an ongoing waste minimization program to further reduce waste volume, concentration quantity, and toxicity. On or before December 1 of each calendar year, the permittee shall submit a report to KDHE which includes a description of the progress and effectiveness of waste minimization projects, a review of existing waste minimization and pretreatment technologies and a time table for implementation of additional projects. The report shall identify the cost and feasibility of treatment of process wastes on an individual parameter basis.

E. Inspection readings of injection flow rate and volume, wellhead annulus pressure, wellhead injection pressure and seal pot level shall be made daily and reported in the monthly monitoring report submitted to KDHE. The inspection readings for wellhead annulus pressure and injection pressure shall include readings of both the gauges and the continuous recording device. The date and time the inspection readings are taken and the initials of the person taking the readings shall be included in the monthly monitoring report.

- F. The monthly average, maximum and minimum values for the daily inspection readings of injection flow rate and volume, wellhead annulus pressure and wellhead injection pressure for the month shall be reported in the monthly monitoring report submitted to KDHE. The monthly average for injection flow rate and flow volume shall be calculated using only the number of days for which injection occurred during the month. The total volume of liquid injected for the month shall also be reported in the monthly monitoring report submitted to KDHE.
- G. The monthly average, maximum and minimum values determined from the continuous recording data for the entire month for injection flow rate and volume, wellhead annulus pressure and wellhead injection pressure shall be reported in the monthly monitoring report submitted to KDHE.
- H. The analytical results of representative wastewater samples required by this permit shall be reported in the monitoring reports submitted to KDHE. The wastewater samples shall be collected from the wastestream during a time that the well is being used for injection. The data reported shall include the analytical results, the name of the laboratory conducting the analyses and the laboratory certification number. All analyses of wastewater required by this permit shall be conducted by a Kansas certified laboratory certified to analyze for the constituents listed in this permit.
- I. As determined from available public information or other information the permittee has available, the permittee shall immediately notify the operator(s) of proposed oil and gas test(s) to be drilled within the 2.5 mile radius area of review for the Occidental Chemicals disposal wells or within the area of the predicted waste plume for the operational life of the disposal wells that Occidental Chemical's waste plume may be encountered. The permittee shall also immediately notify KDHE of the proposed well(s) in the area of review.
- J. The monitoring of the pressure buildup in the injection zone shall be conducted annually including, at a minimum, a shut down of the well for a time sufficient to conduct a valid observation of the pressure fall-off curve. A plan for this test shall be submitted to KDHE for review and approval prior to conducting the test. The test shall not commence until approval of the test plan has been obtained from KDHE. The test results and interpretation of this test shall be submitted to KDHE within thirty (30) days of completion of the test.
- K. The static fluid level of the injection interval shall be measured annually. The method used to measure the static fluid level shall have the prior approval of KDHE. The results of the measurements shall be submitted to KDHE within thirty (30) days of completion of the measurement.
- L. The construction materials used in the well with which the waste is expected to come into contact shall be continuously monitored for corrosion in a manner having the prior approval of KDHE. The construction materials shall be continuously exposed to the operating pressure and temperature (measured at the wellhead) and flow rates of the injection operation. The results and interpretation of this monitoring shall be reported to KDHE quarterly.
- M. The following shall also be reported to KDHE by the permittee:
1. Any well treatment procedures used, including those associated with normal maintenance and malfunction correction, and all well workovers shall be reported to KDHE within thirty (30) days of completion. A well treatment plan

or workover plan shall be submitted to KDHE for review and approval prior to commencing a well treatment or well workover. No well treatment or workover shall commence until the permittee has obtained approval for the treatment or workover plan from KDHE.

2. Immediate notification of KDHE of all spills associated with the operation of the injection well or well system.
3. Notification of KDHE of any well malfunction or failure within twenty-four (24) hours of becoming aware of the circumstances.
4. The results and interpretation of mechanical integrity tests and any other tests or logs of the injection well or injection zone within thirty (30) days of completion.
5. A written description and explanation of any noncompliance with the operating limitations as specified by this permit for wellhead injection pressure, or injection flow volume, or injection limits occurring during the month being reported shall be submitted with the monthly monitoring report.
6. The mass balance of the annular liquid shall be continuously monitored. Any addition of liquid to the annulus seal pot shall be reported in the monthly monitoring report. The date the liquid was added and the volume added shall be included in the monthly monitoring report. The annular liquid shall be a corrosion inhibiting liquid approved by KDHE.
7. 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 KDHE, the permittee shall submit such facts or corrected information to KDHE within five (5) days of becoming aware of the circumstances.

II. WASTE MINIMIZATION CERTIFICATION

On or before December 1 of each calendar year, the permittee shall provide certification to KDHE that: 1) as generator of the hazardous waste, the permittee has a program to reduce the volume or quantity and toxicity of such waste to the degree determined by the generator to be economically practicable, and 2) that injection of the waste is the practical method of disposal currently available to the generator which minimizes the present and future threat to human health and the environment.

III. MECHANICAL INTEGRITY TESTING

A mechanical integrity test (MIT) to check for internal mechanical integrity and the integrity of the bottom-hole cement shall be conducted at least once annually. The internal MIT shall consist of a hydraulic pressure test of the casing/tubing annulus to check for significant leakage in the casing, tubing and packer. The MIT to check for the integrity of the bottom-hole cement shall consist of a radioactive tracer log or similar type log approved by KDHE. The external MIT to check for significant fluid movement adjacent to the wellbore shall be conducted at least once every year. The external MIT shall consist of a KDHE approved temperature log, noise log or oxygen activation log. A KDHE approved casing inspection log to check for deterioration of the casing shall be conducted on or before July 1, 2020, and at least once every five (5) years of operation thereafter. Whenever KDHE believes that due to a downhole problem the continued use of the well constitutes a threat to human health, or

the fresh and/or usable 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 an MIT. An MIT shall be conducted when there has been a well workover. An MIT plan shall be submitted to KDHE for review and approval prior to conducting any MIT. No MIT work shall commence until approval of the MIT has been obtained from KDHE. The internal MIT shall be witnessed by KDHE. If the well fails an MIT, the requirements of Section IV. Part B. of this permit shall be implemented by the permittee. The results and interpretation of a MIT shall be submitted to KDHE within thirty (30) days of test completion.

IV. ANNULUS PRESSURE DECLINE, ANNULUS LIQUID LOSS, ANOMALOUS OPERATIONAL OR MONITORING DATA, LOSS OF MECHANICAL INTEGRITY

A. The permittee shall at all times maintain operational an automatic alarm system designed to alert the well operator when the annulus pressure declines below 130 psig, the tubing pressure exceeds 20 psig or the injection volume exceeds 864,000 gallons per day. If an automatic alarm is triggered, or operational or monitoring data indicating a loss of mechanical integrity occurs, or a loss of annulus liquid indicating a loss of mechanical integrity occurs, the permittee shall: 1) immediately investigate and identify the cause of the triggering of the automatic alarm, annulus pressure decline, annulus liquid loss or anomalous operational or monitoring data, and 2) notify KDHE within twenty-four (24) hours of becoming aware of the circumstances. The results of this investigation shall be reported to KDHE within twenty-four (24) hours of completion of the investigation. 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 KDHE 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 KDHE to resume injection;

B. If a loss of mechanical integrity is determined pursuant to Section IV. Part A. of this permit or as the result of a MIT, the permittee shall:

1. Immediately cease injection of waste fluids;
2. Notify KDHE within twenty-four (24) hours of the determination of the loss of mechanical integrity;
3. Take all steps determined necessary by KDHE to determine whether there may have been a release of waste into any unauthorized zone. If there is evidence there may have been a release into an unauthorized zone the permittee shall orally notify KDHE within twenty-four (24) hours of the determination. A written notice shall also be provided to KDHE within five (5) days of the determination including a description of the release. The permittee shall also place a notice in a newspaper of general circulation when a release into an underground source of drinking water occurs;
4. Comply with any immediate corrective or remedial action specified by KDHE. If determined necessary by KDHE, the permittee shall submit to KDHE 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 KDHE;

5. Restore and demonstrate mechanical integrity to the satisfaction of KDHE. A plan for any well workover or MIT shall be submitted to KDHE for review and approval. Work shall not commence until the permittee has obtained approval of the workover or MIT plan from KDHE;
6. Injection shall resume only upon authorization from KDHE.

V. CERTIFICATION OF TRAINED WELL OPERATORS

On or before December 1 of each calendar year, the permittee shall provide certification to KDHE that properly trained well operators are on site at all times and the operators are and will remain adequately trained to operate and maintain the well and to identify and interpret variations in parameters of concern. A list of operators and a description of operator training shall be submitted to KDHE as part of the certification.

VI. PLUGGING, ABANDONMENT

The well shall be plugged and abandoned upon reaching the end of its useful life or when determined necessary by KDHE to protect human health, or the fresh and/or usable waters or the soils of the State. The permittee currently has a plugging and abandonment plan on file with KDHE. The permittee shall submit to KDHE a revised and updated plugging and abandonment plan when required by KDHE. The permittee shall notify KDHE at least sixty (60) days prior to plugging and abandonment of the well. With the notice, the permittee shall submit a revised and updated plugging and abandonment plan to KDHE for review and approval. The permittee shall conform to all plugging and abandonment requirements of state and federal regulations and KDHE. The well shall be plugged in a manner that will not allow the movement of fluids into or between sources of fresh and/or usable water or allow the movement of injected fluids out of the injection zone. Plugging and abandonment work shall not commence until approval of the plugging and abandonment plan has been obtained from KDHE. The report of plugging and abandonment and related information shall be submitted to KDHE within thirty (30) days after completion of the plugging operation on forms provided by KDHE. The obligation to implement the plugging and abandonment plan survives the termination of the permit or the cessation of injection activities. The requirement to maintain and implement an approved plan is directly enforceable regardless of whether the requirement is a condition of this permit.

VII. POST PLUGGING AND ABANDONMENT CARE

The permittee currently has a post plugging and abandonment care plan on file with KDHE. The permittee shall submit to KDHE a revised and updated post plugging and abandonment care plan when required by KDHE or when the permittee becomes aware of information indicating revision and updating of the plan is necessary. The obligation to implement the post plugging and abandonment care plan survives the termination of the permit or the cessation of injection activities. The requirement to maintain an approved plan is directly enforceable regardless of whether the requirement is a condition of the permit.

VIII. CORRECTIVE ACTION FOR WELLS IN THE AREA OF REVIEW

The permittee currently has a corrective action plan on file with KDHE. The permittee shall submit a revised and updated corrective action plan to KDHE when required by KDHE or when the permittee becomes aware of information indicating revision or updating of the plan is necessary.

IX. FINANCIAL RESPONSIBILITY FOR PLUGGING AND ABANDONMENT AND POST PLUGGING AND ABANDONMENT CARE

The permittee shall maintain financial responsibility and financial resources to close, plug and abandon the underground injection well and appurtenances and for post plugging and abandonment care. The permittee shall show evidence of financial responsibility to KDHE by the submission of a surety bond or other adequate financial assurance such as financial statements or other materials in accordance with the requirements as outlined in 40 CFR Part 144 Subpart F. The permittee currently demonstrates financial assurance by the use of a financial test. The permittee shall annually submit to KDHE revised and updated financial assurance documents and when the permittee becomes aware of information indicating a revision and updating of the documents is necessary. The revision and update shall include a current cost estimate for the plugging and abandonment of the well. The obligation to maintain financial responsibility for plugging and abandonment and post plugging and abandonment care survives termination of the permit or cessation of injection. The requirement to maintain financial responsibility is enforceable regardless of whether the requirement is a condition of the permit. The permittee must notify KDHE by certified mail of the commencement of voluntary or involuntary proceedings under Title 11 (Bankruptcy), U.S. Code naming the owner or operator as debtor, within ten (10) days after commencement of the proceeding. A guarantor of a corporate guarantee must make such notification if named as debtor, as required under terms of the guarantee.

X. CONSTRUCTION REQUIREMENTS

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

Approximate borehole, casing, tubing and cement specifications for the disposal well:

| Borehole Size | Casing or Tubing Size & Material | Weight lbs/ft | Casing Seat Depth* | Type of Cement & Additives | Estimated Number of Sacks of Cement |
|---------------|----------------------------------|---------------|--------------------|--|-------------------------------------|
| 26" | 20" Steel | 78.6 | 140' | Class A | 225 |
| 17.25" | 13-3/8 Steel | 54.5 | 956' | Lead: 50/50 Poz, 2% Gel, 3% CaCl ₂ , ¼ lb/sk celloflake | 685 lead |
| | | | | Tail: Class A +2%CaC12, ¼ lb/sk celloflake | 165 tail |
| 12.25" | 9.63 Steel | 36 And 40 | 3,946' | Stage 1 Lead A-Lite 65/35 Poz+6% Gel, ½ lb/sk celloflake, 2% CaCl ₂ | 440 Lead 1 |
| | | | | Stage 1 Tail Class A +1/2 | 150 |

| | | | | | |
|-----|-----------------------------|-----|-------------------------|---|------------|
| | | | | lb/sk celloflake, 5 lb Gilsonite, 5% gyp, 10% CaCl ₂ | Tail 1 |
| | | | | Stage 2 Lead A-serv Lite + 6% Gel; ½ lb/sk celloflake, 2% CaCl ₂ | 445 Lead 2 |
| | | | | Stage 2 Tail Class A ½ lb/sk celloflake, 2% CaCl ₂ | 50 Tail 2 |
| N/A | 6 5/8 Fibercast/Centri cast | N/A | ☆ (approximately) 3996' | N/A | N/A |

☆ Depth of the tailpipe is subject to change during the life of the permit (as a result of future workovers or as the FRP pipe expands and contracts within the polished bore receptacle).

Packer Type: GPS Model 12
 Packer Seating Depth: 3890'

A schematic illustrating the completion of the well is included at Attachment V.

N/A = Not Applicable

B. Type of Annulus Liquid: Treated water with corrosion inhibitor to be approved by KDHE and Diesel Cap.

Minimum Annulus Pressure: 130 psig.

C. Injection is into the Arbuckle and Simpson formations from approximately 3835' feet to 4745' feet below ground level.

D. Injection interval is open hole from approximately 3946' to 4951' below ground level.

E. A diesel blanket shall be emplaced between the injection tubing (tail pipe) located below the packer and the 9-5/8" casing.

XI. SPILL PREVENTION AND CONTAINMENT

The wellhead is contained in a concrete sump. The sump shall be kept essentially empty at all times except when used to contain a spill. The spillage shall be immediately directed to a Class I injection well located on the facility. Any spillage outside the sump will be collected in the facility wastewater system and returned to a Class I injection well located on the facility.

XII. CONVERSION

A notice of conversion of the well to a use other than disposal of industrial waste shall be submitted to KDHE at least sixty (60) days prior to conversion. A conversion plan shall be

submitted with the notice to KDHE for review and approval. The well shall not be converted until approval of the conversion plan has been obtained from KDHE.

XIII. SCHEDULE OF COMPLIANCE

None.

XIV. STANDARD CONDITIONS - ATTACHMENT I

In addition to the specified conditions stated herein, the permittee shall comply with the provisions of Attachment I.

XV. ADDITIONAL CONDITIONS

None.

Effective March 24, 2011

ATTACHMENT I

STANDARD CONDITIONS FOR
UNDERGROUND INJECTION CONTROL PERMITSCLASS I HAZARDOUS WASTE
INJECTION WELLS

CONDITIONS APPLICABLE TO ALL PERMITS

- 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 action; for permit termination, revocation and reissuance, modification or denial of a 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 KDHE at least 180 days prior to its expiration date.
- C. Duty to Halt or Reduce Activity: It shall not be an acceptable defense for a permittee, in an enforcement action, 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 on the environment resulting from noncompliance with this permit.
- 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.
- G. Duty to Provide Information: The permittee shall furnish to KDHE within a reasonable time, any information which KDHE 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 KDHE, upon request, copies of reports and information required to be kept by this permit.

H. Inspection and Entry: The permittee shall allow the Secretary, or any authorized representative, upon the presentation of credentials and other documents as may be required by law, to:

1. 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;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
3. Inspect any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
4. Sample or monitor for the purpose of assuring permit compliance or as otherwise authorized by the appropriate Act, any substances or parameters at any location.

I. Samples, Measurements and Records:

1. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
2. The permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, 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 three (3) years for the date of sample, measurement, report or application. This period may be extended by request of KDHE at any time.
3. The permittee shall retain records concerning the nature and composition of all injected fluids until three (3) years after the completion of any plugging and abandonment procedures. KDHE may require the owner or operator to deliver the records to KDHE at the conclusion of the retention period.
4. Records of monitoring information shall include:
 - a. The date, exact place, and time of sampling or measurements;
 - b. The individual(s) who performed the sampling or measurements;
 - c. The date(s) analyses were performed;
 - d. The individual(s) who performed the analyses;
 - e. The analytical sampling, and sample preservation technique or methods used; and
 - f. The results of such analyses.

- J. Signatory Requirements: All permit applications, reports required by this permit, or other information requested by KDHE shall be signed and certified in accordance with the requirements of K.A.R. 28-46-22.
- K. Reporting Requirements:
1. Except for all new wells authorized by an area permit under K.A.R. 28-46-18, a new injection well may not commence injection until construction is complete, and:
 - a. The permittee as submitted notice of completion of construction to KDHE; and
 - b. 1) KDHE has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; or
2) The permittee has not received notice from KDHE expressing the intent to inspect or otherwise review the new injection well within thirteen(13) days of the date of the receipt of the notice in paragraph a. of this section, in which case prior inspection or review is waived and the permittee may commence injection. KDHE shall allow for a reasonable time period in which the well shall be inspected.
- L. Transfer of Permit: This permit is not transferable to any person except after notice and approval by KDHE. KDHE 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 Act. In some case, modification and reissuance is mandatory. The current owner shall notify KDHE at least thirty (30) days in advance of the proposed transfer date. The procedure for transferring ownership is provided at http://www.kdheks.gov/uic/download/Notice_of_Ownership-Operator_Change.pdf. The new permittee shall submit to KDHE at least thirty (30) days prior to the proposed transfer date a new permit application including the financial assurance documents guaranteeing resources are available to properly plug and abandon the well.
- M. Emergency Reporting: The permittee shall within twenty-four (24) hours of becoming aware of the circumstances orally report to KDHE any noncompliance which may endanger human health or environment. A written submission shall also be provided within five (5) 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 KDHE.
- N. Operational Requirements:
1. The permittee shall not allow the movement of fluid containing any contaminant into any formation or aquifer not permitted to receive fluid by this permit. The permittee shall have the burden of showing the requirements of this paragraph are met.

2. 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 or into any uncontaminated part of the formation permitted to receive fluid by this permit, the permittee shall take such action as required by KDHE, including taking the well out of service, closure of the well or plugging and abandonment of the well.

O. Requirements for Wells Managing Hazardous Waste:

1. **Applicability.** The regulations in this section apply to all generators of hazardous waste, and to the owners or operators of all hazardous waste management facilities, using any class of well to inject hazardous wastes accompanied by a manifest.
2. **Authorization.** The owners or operator of any well that is used to inject hazardous wastes accompanied by a manifest or deliver document shall apply for authorization to inject waste as specified in K.A.R. 28-46-5 within six months after the approval of an applicable state program.
3. **Requirements.** In addition to meeting applicable requirements of Article 46, the permittee shall, for each facility meeting the requirements of paragraph 2. Of this section, comply with the following:
 - a. Notification requirements of Section 3010 of P.O. 94-580.
 - b. Identification number requirements of 40 CFR Sec. 264.11.
 - c. Manifest system. The applicable record keeping and reporting requirements for manifested wastes in 40 CFR Sec. 264.71.
 - d. Manifest discrepancies as in 40 CFR Sec. 264.72.
 - e. Operating record as in 40 CFR Sec. 264.73(A), (b) (1), and (b) (2).
 - f. Annual report as in 40 CFR Sec. 264.75.
 - g. Personnel training. Applicable personnel training requirements of 40 CFR Sec. 264.16.
 - h. Certification of closure. When abandonment is completed, the permittee must submit to the Secretary certification by the owner or operator and certification by an independent registered professional engineer that the facility has been closed in accordance with the specifications in K.A.R. 28-46-9.

- P. Permit Modifications and Terminations: After notice and opportunity for a hearing, this permit may be modified, suspended or revoked, or terminated in whole or in part during its term for cause as provided, but not limited to those set forth in K.A.R. 28-46-15 and K.A.R. 28-46-16 or if the KDHE or Environmental Protection Agency standards or regulations on

which the permit was based have been changed by promulgation of new or amended codes, statutes, regulations or standards or by judicial decision after the permit was issued. The permittee shall furnish to KDHE, within a reasonable amount of time, any information which KDHE 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.

- Q. **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 thereby.
- R. **Change in Waste Stream**: Any facility changes or process modifications which may result in new, different or altered injection streams or an increase in injection volumes or an increase in concentration of pollutants shall be reported to KDHE at least one hundred eighty (180) days before such changes.
- S. **Anticipated Noncompliance**: If for any reason, the permittee will be unable to comply with permit requirements, the permittee shall give advance notice to KDHE. The notice shall include the reason for the anticipated noncompliance and a description of steps taken to reduce, eliminate and prevent recurrence of the noncompliance. Upon receiving proper notice from the permittee KDHE may grant for a specified time a temporary waiver to a permit requirement for the purpose of testing or treating the well or for conducting a well workover or to protect human health or the environment.
- T. **Permit Actions**: The filing of a request by the permittee for a permit modification, a notification of planned changes or anticipated noncompliance, does not stay any permit condition.

ATTACHMENT II
LIST OF ANALYTICAL PARAMETERS
OCCIDENTAL CHEMICAL CORPORATIONS – WICHITA, KANSAS

VOLATILE ORGANIC COMPOUNDS

1,1 - dichloroethane
1,1 - dichloroethylene
1,2 - dichloroethane
1,2 - dichloropropane
1,2 - trans-dichloroethylene
1,3 - cis-dichloropropene
1,3 - trans-dichloropropene
1,1,1 - trichloroethane
1,1,2 - trichloroethane
1,1,2,2 - tetrachloroethane
benzene
bromodichloromethane
bromoform (tribromomethane)
bromomethane
chlorobenzene
chloromethane
chloroethane
dibromochloromethane
dichlorodifluoromethane
dichloromethane
tetrachloroethylene
tetrachloromethane
total trihalomethanes
trichloroethylene
trichlorofluoromethane
trichloromethane
vinyl chloride

PHENOL AND CHLORINATED PHENOL COMPOUNDS

2,6 - dichlorophenol
3,4 - dichlorophenol
2,3,4 - trichlorophenol
2,4,5 - trichlorophenol
3,4,5 - trichlorophenol
2,3,4,6 - trichlorophenol
2,3,5,6 - tetrachlorophenol
p-chlorophenol
2,4-dichlorophenol
2,4,6 - trichlorophenol
o - chlorophenol
pentachlorophenol
phenol

HEXACHLORINATED COMPOUNDS AND PESTICIDES

hexachlorobenzene
hexachlorobutadiene
hexachloroethane
a-BHC
b-BHC
d-BHC
g-BHC (main lindane isomer)

METALS

antimony
chromium (III)
chromium (VI)

