

PUBLIC NOTICE

U.S. Environmental Protection Agency

Region 4

Water Protection Division – Grants and Drinking Water Protection Branch

61 Forsyth Street, SW

Atlanta, Georgia 30303-8960

Public Notice Number KY17UIC002

December 23, 2016

NOTICE OF PROPOSED ISSUANCE OF
UNDERGROUND INJECTION CONTROL PERMIT

The U.S. Environmental Protection Agency, Region 4 intends to issue an Underground Injection Control (UIC) permit under the authority of Title 40 the Code of Federal Regulations at (40 C.F.R.) Parts 124, 144, 146, and 147 to:

Ogenoco, LLC
16376 Middlebelt Road
Livonia, Michigan 48154
UIC Permit Application Number KYI1048

The proposed Class II-D permit will authorize the Construction, operation, plugging and abandonment of the Tracy McCoy #1 disposal well in the Turlow Project Oil Field located in Green County, Kentucky, Carter Coordinate 6-I-48.

The permitted well will be used to inject produced brine brought to the surface in connection with conventional oil and natural gas production from the permittee's operations in the Turlow Project Oil Field. The injection zone will be the Knox Dolomite in the open hole interval from 1,748 to 2,026 feet below land surface.

The proposed UIC permit was drafted in accordance with the provisions of the Safe Drinking Water Act, as amended (42 USC §300f et seq., commonly known as SDWA) and other lawful standards and regulations. The permit limitations and conditions are tentative and open to comment from the public. Persons wishing to comment upon or object to any aspects of the permit issuance are invited to submit same in writing within thirty (30) days of this notice to the Ground Water and UIC Section, Grants and Drinking Water Protection Branch (GDWPB), U.S. Environmental Protection Agency, Region 4, Atlanta Federal Center – Mail Code: 9T25, 61 Forsyth Street SW, Atlanta, Georgia 30303-8960 ATTN: Mr. Jason B. Meadows or via email to Meadows.JasonB@EPA.GOV. The public notice number and the UIC permit number should be included in the first page of comments. All comments received during the public notice period will be made a part of the administrative record of this permit and will be available for public review.

All comments received within the thirty-day period will be considered in the formulation of the final determination regarding the permit issuance. Any interested person may, within the thirty-day period, request a public hearing, as provided by 40 C.F.R. §124.12. Where there is a significant degree of public interest in the proposed permit issuance, the EPA Regional Administrator will hold a public hearing. Any request for a hearing must be in writing to the address given above and must state the nature of the issues proposed to be raised in the hearing.

After consideration of all timely written comments, the requirements and policies in the SDWA and appropriate regulations, and, if a hearing is held, after consideration of all comments, statements and data presented at the hearing, the EPA Regional Administrator or her designee will make final determinations regarding the permit issuance. If the final determinations are substantially unchanged from the tentative determinations outlined above, the EPA Regional Administrator or her designee will so notify all persons who submitted written comments or participated in the hearing, if any was held. If the final determinations are substantially changed, the EPA Regional Administrator or her designee will issue a public notice indicating the revised determinations.

Within thirty (30) days after the Regional Administrator serves notice of the above final permit decision, any person who filed comments or participated in the public hearing, if any, may petition the Environmental Appeals Board (EAB) to review the permit decision or any condition therein. Any person, who failed to file comments or failed to participate in the public hearing, if any, may petition for administrative review only to the extent of the changes from the draft to the final permit decision. Additional information regarding administrative review is available in 40 C.F.R. §124.19 or by contacting Mr. William Bush of the Office of Environmental Accountability at the above address or telephone number (404) 562-9538. Technical information regarding the permit review is available by contacting Mr. Jason B. Meadows of the Ground Water and UIC Section at (404) 562-9399. A petition to the EAB under 40 C.F.R. §124.19 is a prerequisite to the seeking of judicial review of the final permit decision.

The administrative record, including application, statement of basis, draft permit, comments received and additional information on hearing procedures is available by writing to the EPA at the above address, or for review and copying at 61 Forsyth Street, 9th Floor, Atlanta, Georgia, 30303-8960, between the hours of 8:15 a.m. and 4:30 p.m., Monday through Friday. Copies will be provided at a cost of 20 cents per page.

Please bring the foregoing to the attention of anyone who may be interested in this matter.

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U.S. ENVIRONMENTAL PROTECTION AGENCY
UNDERGROUND INJECTION CONTROL PERMIT
AUTHORIZATION TO OPERATE A CLASS II INJECTION WELL
EPA UIC PERMIT NUMBER KYI1048

Pursuant to the Underground Injection Control regulations of the U.S. Environmental Protection Agency codified at Title 40 of the Code of Federal Regulations (40 C.F.R.), Parts 124, 144, 146 and 147:

Ogenoco, LLC
16376 Middlebelt Road
Livonia, Michigan 48154

is hereby authorized to convert, operate, plug and abandon the following Class II disposal injection well:

Tracy McCoy #1
Green County, Kentucky
Turlow Project Oil Field
Latitude 37° 13' 4.5" North & Longitude 85° 34' 4.9" West

This authorization is in accordance with the limitations, monitoring requirements and other conditions set forth herein. This permit consists of: this cover page; Part I, 6 pages; Part II, 10 pages; and Part III, 1 pages.

All references to 40 C.F.R. are to regulations that are in effect on the date that this permit becomes effective.

This permit shall become effective on DRAFT .

This permit and the authorization to inject shall remain in full force and effect during the operating life of the well, unless this permit is otherwise modified, revoked and reissued, terminated, or a minor modification is made as provided at 40 C.F.R. §§144.39, 144.40 and 144.41. This permit shall be reviewed at least once every five years from the effective date.

 DRAFT

Date

 DRAFT

Mary S. Walker, Director
Water Protection Division
U.S. Environmental Protection Agency
Region 4

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PART I. WELL SPECIFIC CONDITIONS

SECTION A. CONSTRUCTION REQUIREMENTS1. Casing and Cementing

The permittee shall maintain all casing and cement so as to prevent the movement of fluids into or between any underground sources of drinking water (USDWs). The casing and cement used in the construction of the well shall be designed for the life expectancy of the well. Conversion of this well shall be performed as specified in Attachments L & M of the permit application.

2. Tubing and Packer

Injection may only take place through tubing with a packer set within the casing no higher than 1740 feet below land surface. The tubing and packer shall be maintained in a manner which is compatible with the injection operation specified in Part I, Section B, and which prevents the movement of fluids into or between any USDWs.

3. Logs, Tests and Reports

The following tests and reports shall be prepared and submitted to the EPA to demonstrate mechanical integrity:

- (a) A copy of all logs run in the well.
- (b) Cement tickets and invoice from the contracted cementing service company indicating cement volume, type, additives and a job description summary.
- (c) A demonstration of the mechanical integrity of the well is required before injection or conversion to a production well can be authorized. The demonstration will consist of a pressure test on the tubing/casing annulus to at least 300 psig with not more than three percent pressure change in 30 minutes or an approved alternative mechanical integrity test (MIT). The permittee shall contact the EPA to arrange a date to conduct this test. A representative of the EPA will be present to witness this test. If the well fails the test, the permittee will not be given approval to commence injection operations until the problem is corrected and mechanical integrity can be demonstrated.
- (d) The permittee shall prepare a report, including procedures and results, of the logging and testing programs. Each log shall include a written interpretation prepared by a knowledgeable log analyst. The report must be submitted in accordance with Part I, Section A, Item 4, and shall be signed in accordance with Part II, Section E, Item 11, of this permit.

4. Commencing Injection

The well authorized by this permit may not commence injection until:

- (a) Conversion is complete, and the permittee has submitted to the Director, by certified mail with return receipt requested, a notice of completion using EPA Form 7520-10, and either:
 - (i) The Director has inspected or otherwise reviewed the new injection well and finds it is in compliance with the conditions of the permit; or

- (ii) The permittee has not received, within thirteen (13) days of the date of the Director's receipt of the notice required above, notice from the Director of his intent to inspect or otherwise review the new injection well, in which case prior inspection or review is waived and the permittee may commence injection.
- (b) The permittee has demonstrated to the EPA that the injection well has mechanical integrity, and has submitted the reports as specified in Part I, Section A, Item 3.
- (c) Additional action(s) as specified in Part III has been completed, and a report, signed in accordance with Part II, Section E, Item 11, has been submitted to and approved by the Director.

SECTION B. OPERATING REQUIREMENTS

1. Injection Operation

Beginning on the date that Part I, Section A, Item 4, is completed and lasting through the term of this permit, the permittee is authorized to inject only (make-up water and) fluids brought to the surface in connection with conventional oil and natural gas production from the permittee's operations in the Turlow Project Oil Field for disposal operations under the following conditions:

(a) Injection Zone

Injection shall be limited to the Knox Group Dolomites in the open hole interval between 1,748 and 2,026 feet below land surface.

(b) Injection Pressure Limitation

The maximum allowable wellhead injection pressure for the Tracy McCoy #1 will be 325 psig. Upon approval by the Director, the permittee may inject at the appropriate pressure indicated during any step-rate test conducted on the injection well authorized by this permit. Step-rate injectivity test procedures must be approved by the Director prior to conducting the test and the test may be witnessed by the EPA or an agent designated by the EPA.

- (i) Injection at a pressure which initiates or propagates fractures in the confining zone or causes the movement of injection or formation fluids into any USDWs is prohibited.
- (ii) Injection between the outermost casing protecting any USDWs and the well bore is prohibited.

(c) Injection Fluid

The permittee shall not inject any hazardous waste as defined by Title 40 of the Code of Federal Regulations (40 C.F.R.) at Part 261, nor any other fluids, other than the fluids generated by operation of the Turlow Project Oil Field unless approved in advance by the Director. In cases of well stimulation and/or fracturing of the well, the permittee shall provide a list of all products to be used and their chemical composition in advance of the operation. Additionally, the permittee shall provide in advance a list of any additives to the injectate that are planned on being used and their chemical composition, including any inhibitors used to prevent scaling, corrosion, or bacterial growth. These lists should also indicate the brand name of the product(s) where appropriate and their manufacturer.

2. Annulus Operation

The annulus between the tubing and the long-string casing shall be filled with brine or other fluid as approved by the Director. The annulus pressure shall be maintained at zero psig.

The annulus shall be monitored with a gauge designed to indicate both a vacuum (below atmospheric) and positive pressure (above atmospheric). The permittee shall comply with Part I, Section B, Item 3, when a change in the annulus pressure of 15 psig occurs. The permittee shall provide an explanation to the Director for the change in pressure and measures that will be taken to restore annulus pressure to achieve compliance with this Section. If the cause of annulus pressure change is not corrected within 48 hours, the permittee shall cease injection unless such order to cease operation is waived by the Director.

3. Loss of Mechanical Integrity During Operation

The permittee shall cease injection if a loss of mechanical integrity as defined at 40 C.F.R. §146.8 becomes evident during operation. Operation shall not be resumed until the permittee has complied with the provisions of Part II, Section G, of this permit regarding mechanical integrity demonstration and testing.

The permittee shall notify the Director of the loss of mechanical integrity in accordance with the reporting procedures in Part II, Section E, Item 12(d). The Director may allow the owner or operator of the well to continue or resume injection if the owner or operator makes a satisfactory demonstration under 40 C.F.R. §144.51(q)(3) that there is no movement of fluid into or between any USDWs.

SECTION C. MONITORING REQUIREMENTS

1. Sampling and Analysis Methods

(a) Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity. Grab samples shall be used for the laboratory analysis of the physical and chemical characteristics as specified in Part I, Section C, Item 3(a). Test methods and procedures shall be as specified at 40 C.F.R. §136.3 or 40 C.F.R. § 261, Appendix III. When the analytical method for a particular parameter is not specified at either 40 C.F.R. §136.3 or

(b) 40 C.F.R. Part 261, Appendix III, the permittee must obtain the Director's approval of the method used. The permittee shall identify the types of tests and methods used to generate all monitoring data. Reports to be generated from monitoring data are specified in Part I, Section D.

2. Injection Operation Monitoring

The permittee shall monitor the operation of the injection well as follows:

<u>Parameter</u>	<u>Monitoring Frequency</u>
Injection Pressure (psig) at Wellhead	Weekly
Annulus Pressure (psig) at Wellhead	Weekly
Flow Rate (barrels/day) of Injected Fluid	Weekly
Cumulative Volume (barrels) of Injected Fluid	Monthly

Observation and recording of injection pressure, annulus pressure, flow rate and cumulative volume shall be made over equal time intervals beginning on the date on which the well commences operation. Recordings shall be of representative values.

3. Injection Fluid Analysis

The permittee shall conduct an injection fluid analysis at least once every twelve (12) months and whenever changes are made to the injection fluid. Analyses shall be made beginning within twelve (12) months from the effective date of this permit, or twelve (12) months from the most recent analysis, whichever is later. For wells that resume injection after having been shut in, the permittee will have thirty (30) days from the date injection resumes for the submission of the injection fluid analysis. An analysis must include:

- (a) pH, total dissolved solids, and specific gravity; and
- (b) A list of all chemicals and their composition used for any well stimulation and fracturing during that sampling year; and a list of any additives used and their chemical composition, including any inhibitors used to prevent scaling, corrosion, or bacterial growth. These lists should indicate the brand name of the product and the manufacturer.
- (c) On the written request of the EPA, an injection fluid analysis shall include the following additional constituents: barium, calcium, total iron, magnesium, sodium, bicarbonate, carbonate, chloride, sulfate, carbon dioxide, dissolved oxygen, hydrogen sulfide and purgeable aromatic hydrocarbons.

SECTION D. REPORTING REQUIREMENTS

1. Reports on Well Tests and Workovers

Within ninety (90) days after the completion of the activity, the permittee shall report to the Director the results of the following:

- (a) Mechanical integrity tests, other than those specified in Part I, Section A, Item 3; and
- (b) Any well workover, logging or other test data, other than those specified in Part I, Section A, Item 3, revealing downhole conditions.

2. Reporting of Monitoring Results

The permittee shall submit an Annual Monitoring Report, EPA Form 7520-11, whether injecting fluids or not, to the Director summarizing the results of the monitoring as specified in Part I, Section C of this permit. The first Annual Monitoring Report shall cover the period from the effective date of the Permit through December 31 of that year. Subsequently, the Annual Monitoring Report shall cover the period from January 1 through December 31, and shall be submitted by January 31 of the following year. All reports submitted to the Director shall indicate the status of the injection well, i.e., active, shut-in, or plugged.

Copies of the monitoring results required by Part I and all other reports required by Part II shall be submitted to the Director at the following address:

Ground Water and UIC Section
Grants and Drinking Water Protection Branch (GDWPB)
U.S. Environmental Protection Agency, Region 4
Atlanta Federal Center – Mail Code: 9T25
61 Forsyth Street SW
Atlanta, Georgia 30303-8960

3. Reporting of New Wells Drilled Within the Area of Review (AoR)

Within ten (10) days after spud date, the permittee shall report to the Director by certified mail, return receipt requested, the construction plans for any new well that will penetrate the confining zone or injection zone that is listed in the public records or otherwise known to the permittee to be within the AoR.

The Director may terminate the permit under 40 C.F.R. §144.40(a)(3), if the construction of the new well will not protect USDWs from contamination or continued injection may endanger human health or the environment.

4. Reporting of Previously Unknown Orphaned Wells or a Fault or Joint/Fracture System Within the AoR

If the permittee discovers the existence of any orphaned wells or faults or joint/fracture systems within the AoR that were not disclosed in the original permit application, the permittee shall within ten (10) days from the date of discovery report such information to the Director with documentation by certified mail, with return receipt requested.

Pursuant to 40 C.F.R. §144.40(a), the Director may terminate a permit during its term, or deny a permit renewal application for the following causes: (1) Noncompliance by the permittee with any condition of the permit; (2) The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time; or (3) A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

SECTION E. Naturally Occurring Radioactive Material

During the operating life of the permitted well, this injection facility may be screened for technologically enhanced naturally occurring radioactive material (NORM) by the EPA or another party. If the permittee is notified by a party other than the EPA, or becomes aware at any time that elevated levels of NORM have been detected at this injection facility, the permittee must notify the EPA in writing of that fact no later than 45 days prior to the permittee's intent to P&A the well. The EPA may require the permittee to revise the P&A plan to ensure the safe disposal and proper management of elevated levels of NORM waste.

SECTION F. PLUGGING AND ABANDONMENT PLAN

Plugging and abandonment (P&A) of the permitted injection well shall be in accordance with Part II, Section F, of this permit and 40 C.F.R. §146.10.

The plugging of this injection well shall be performed in the manner described below:

Prior to conducting the P&A of this injection well, the owner/operator will be required to contact the Director to schedule a representative of the EPA to witness the actual P&A of the injection well.

Once the injection well has been shut in for 48 hours, the tubing and packer will be permanently removed from the injection well casing and disposed of properly. In the event of fluids from the injection zone not being at static equilibrium, a cast iron bridge plug will be set inside the casing just above the highest perforate zone. If the fluids within the injection zone are at static equilibrium, there is no need for a cast iron bridge plug. Prior to cementing the injection well, the inner casing will be cleaned and flushed out with freshwater to prevent petroleum product residue from contaminating the cement.

The injection well will be plugged with Class-A Portland Cement (Class-A) in a manner which will not allow the movement of fluids either into or between any USDWs. Class-A is intended for use in P&A of an injection well to a total depth of 6,000 feet (1,830 meters) below land surface. The required freshwater cement ratio mixture, according to the American Petroleum Institute (API) or American Society for Testing and Materials (ASTM) C 150, Type I, is 0.46 by weight (5.2 gallons per 94 pound sack or 19.7 liters per 94 pound sack). If the EPA inspector or the EPA representative has reservations on the quality of the Class-A being used, the owner/operator will be required to demonstrate the viscosity of the cement (i.e. Marsh Funnel Viscometer) in accordance with API RP13B-1 or ASTM D6910/D6910M set standards for analyzing the viscosity of the Class-A in the field prior to the cementing activities.

In accordance with 40 C.F.R. §§144.51(o), 146.10 and 146.92, the cemented interval for this injection well will be from total depth (or cast iron bridge plug) to three feet below land surface. The intended delivery method of the Class-A to total depth for P&A of this injection well will be a tremie tube which extends to the total depth of the injection well (or cast iron bridge plug). The tremie tube used must be clean and free of any petroleum product residue prior to use. Once the Class-A has been circulated to surface from total depth (or the cast iron bridge plug), the tremie tube will be permanently removed from the injection well. After the Class-A has properly cured, the owner/operator will be required to revisit the site to ensure the cement within the casing is within three feet of the surface. If needed, additional Class-A will be used to fill the void space within the casing to within three (3) feet of the surface. The top three (3) feet of casing string will be cut off and a metal cap will be welded over the top portion of the casing string. Then, the ground surface will be graded back and any oil field equipment remaining will be removed from the site. The owner/operator will be required to demonstrate with photographs that the injection well's top three feet of casing string was removed, capped, ground surface was graded back and any oil field equipment was removed from the site. The photographs shall be submitted to the EPA for review.

PART II GENERAL PERMIT COMPLIANCE

SECTION A. EFFECT OF PERMIT

The permittee is allowed to engage in underground injection in accordance with the conditions of this permit. The permittee, authorized by this permit, shall not construct, operate, maintain, convert, plug, abandon, or conduct any other injection activity in a manner that allows the movement of fluid containing any contaminant into an Underground Source of Drinking Water (USDW), if the presence of that contaminant may cause a violation of any primary drinking water regulation under Title 40 of the Code of Federal Regulations (40 C.F.R.) Part 142 or may otherwise adversely affect the health of persons. Any underground injection activity not specifically authorized in this permit is prohibited. Compliance with this permit does not constitute a defense to any action brought under the Safe Drinking Water Act (SDWA), or any other common or statutory law or regulation. Issuance of this permit does not convey property rights of any sort or any exclusive privilege; nor does it authorize any injury to persons or property, or invasion of other private rights, or any infringement of State or local law or regulations. Nothing in this permit shall be construed to relieve the permittee of any duties under applicable regulations.

SECTION B. PERMIT ACTIONS1. Modification, Revocation, Reissuance and Termination.

The Director may, for cause or upon request from the permittee, modify, revoke and reissue, or terminate this permit in accordance with 40 C.F.R. §§144.12, 144.39 and 144.40, for any one of the following reasons:

- (a) Alterations. There are material and substantial alterations or additions to the permitted facility or activity which occurred after permit issuance which justify the inclusion of permit conditions that are different from or absent in the existing permit.
- (b) Information. The Director has received information which was not available at the time of permit issuance (other than revised regulations, guidance or test methods) and which would have justified the application of different permit conditions at the time of issuance. For UIC area permits, this cause shall include any information indicating that cumulative effects on the environment are unacceptable.
- (c) New regulations. The standards or regulations on which the permit was based have been changed by promulgation of newer or amended standards or regulations or by judicial decision after the permit was issued.
- (d) Compliance schedules. The Director determines that good cause exists for modification of a compliance schedule, such as an act of God, strike, flood, or material shortage or other events over which the permittee has little or no control and for which there is no reasonably available remedy.
- (e) Proposed transfer. The Director receives notification of a proposed transfer of the permit.
- (f) Noncompliance. Noncompliance by the permittee with any condition of the permit.

- (g) Relevant facts. The permittee's failure in the application or during the permit issuance process to disclose fully all relevant facts, or the permittee's misrepresentation of any relevant facts at any time.
- (h) Endangerment. A determination that the permitted activity endangers human health or the environment and can only be regulated to acceptable levels by permit modification or termination.

Also, the permit is subject to minor modifications for cause as specified in 40 C.F.R. §144.41. The filing of a request for a permit modification, revocation and reissuance, or termination, or the notification of planned changes, or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any permit condition.

The submittal of an updated application may be required prior to the Director's granting a request for permit modification.

2. Transfer of Permits

This permit is not transferable to any person except after notice to and approval by the Director, and in compliance with the requirements and conditions of 40 C.F.R. §144.38.

The Director 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 SDWA.

This permit may be transferred to a new owner or operator by modification according to 40 C.F.R. §144.41(d), where the Director determines that no other change in the permit is necessary, provided that written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee has been submitted to the Director.

SECTION C. SEVERABILITY

The provisions of this permit are severable, and if any provision of this permit or the application of any provision of this permit to any circumstances is held invalid, the application of such provision to other circumstances and the remainder of this permit shall not be affected thereby.

SECTION D. CONFIDENTIALITY

In accordance with 40 C.F.R. Part 2, any information submitted to the EPA pursuant to this permit may be claimed as confidential by the submitter. Any such claim must be asserted at the time of submission by stamping the words "confidential business information" on each page containing such information. If no claim is made at the time of submission, the EPA may make the information available to the public without further notice. If a claim is asserted, the information will be treated in accordance with the procedures in 40 C.F.R. Part 2 (Public Information). Claims of confidentiality for the following information will be denied:

1. The name and address of any permit applicant or permittee;
2. Information which deals with the existence, absence or level of contaminants in drinking water.

SECTION E. DUTIES AND REQUIREMENTS1. Duty to Comply

The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the SDWA and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application; except that the permittee need not comply with the provisions of this permit to the extent and for the duration such noncompliance is authorized in an emergency permit under 40 C.F.R. §144.34.

2. Penalties for Violations of Permit Conditions

Any person who violates a permit requirement is subject to civil penalties and other enforcement actions under the SDWA which may include criminal prosecution.

3. Continuation of Expiring Permits.

(a) 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.

(b) Permit Extensions. The conditions of an expired permit may continue in force in accordance with 5 U.S.C. §558(c) until the effective date of the new permit, if:

- (i) The permittee has submitted a timely application which is a complete application for a new permit; and
- (ii) The Director, through no fault of the permittee, does not issue a new permit with an effective date on or before the expiration date of the previous permit, and
- (iii) The new permit has not been denied, or if a denial has been appealed, final agency action has not occurred in accordance with 40 C.F.R. §124.19(f)(1).

(c) Effect. Permits continued under 5 U.S.C. §558(c) remain fully effective and enforceable.

(d) Enforcement. When the permittee is not in compliance with the conditions of the expiring or expired permit, the Director may choose to do any or all of the following:

- (i) Initiate enforcement action based upon the permit which has been continued;
- (ii) Issue a notice of intent to deny the new permit. If the permit is denied, the owner or operator would then be required to cease the activities authorized by the continued permit or be subject to enforcement action for operating without a permit;
- (iii) Issue a new permit under 40 C.F.R. Part 124 with appropriate conditions; or
- (iv) Take other actions authorized by Underground Injection Control regulations.

(e) State Continuation. An EPA issued permit does not continue in force beyond its expiration date under Federal law if at that time a State has primary enforcement authority. A State authorized to administer the UIC program may continue either the EPA or State issued permits until the effective date of the new permits, if State law allows. Otherwise, the facility or activity is operating without a permit from the time of expiration of the old permit to the effective date of the State issued new permit.

4. Need to Halt or Reduce Activity not a Defense.

It shall not be a 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.

5. 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.

6. Proper Operation and Maintenance

The permittee shall at all times properly operate and maintain all facilities and systems of 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 only when necessary to achieve compliance with the conditions of this permit.

7. Duty to Provide Information.

The permittee shall furnish to the Director, within a time specified, any information which the Director 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 to the Director, upon request, copies of records required to be kept by this permit.

8. Inspection and Entry

The permittee shall allow the Director, or an 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 must be 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 at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
- (d) Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by SDWA, any substances or parameters at any location.

9. Property Rights

This permit does not convey any property rights of any sort, or any exclusive privilege.

10. Monitoring 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 the following:

- (i) 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 from the date of the sample, measurement, report, or application. This period may be extended by request of the Director at any time; and
 - (ii) The nature and composition of all injected fluids until three (3) years after the completion of any plugging and abandonment procedures specified under 40 C.F.R. §144.52(a)(6), or under Part 146, Subpart G, as appropriate. The Director may require the owner or operator to deliver the records to the Director at the conclusion of the retention period. The owner or operator shall continue to retain the records after the three (3) year retention period unless he delivers the records to the Director or obtains written approval from the Director to discard the records.
- (c) 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 techniques or methods used; and
 - (vi) The results of such analyses.

11. Signatory Requirements.

- (a) All reports or other information submitted to the Director shall be signed and certified in accordance with 40 C.F.R. §144.32, as follows:
 - (i) For a corporation: by a responsible corporate officer. For the purpose of this permit, a responsible corporate officer means: (1) a president, secretary, treasurer or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy - or decision making functions for the corporation, or (2) the manager of one or more manufacturing, production or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding 25 million (in second quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporation procedures.
 - (ii) For a partnership or sole proprietorship: by a general partner of the proprietor, respectively; or
 - (iii) For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official; or
 - (iv) A duly authorized representative.

- (b) A person is a duly authorized representative only if:
- (i) The authorization is made in writing by a person described above;
 - (ii) The authorization specifies either an individual or a position having responsibility for the overall operation of the regulated facility or activity, such as the position of plant manager, operator of a well or a well field, superintendent, or position of equivalent responsibility. (A duly authorized representative may thus be either a named individual or any individual occupying a named position.); and
 - (iii) The written authorization is submitted to the Director.
- (c) If an authorization under paragraph (b) above is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, a new authorization satisfying the requirements of paragraph (b) of this section must be submitted to the Director prior to or together with any reports, information, or applications to be signed by an authorized representative.
- (d) Any person signing a document under paragraphs 11(a) or 11(b) of this section shall make the following certification:

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

12. Reporting Requirements.

- (a) Planned Changes. The permittee shall give written notice to the Director, as soon as possible, of any planned physical alterations or additions to the permitted facility.
- (b) Anticipated Noncompliance. The permittee shall give advance notice to the Director of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements.
- (c) Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of this permit shall be submitted no later than thirty (30) days following each schedule date.
- (d) Twenty-four Hour Reporting. The permittee shall report any noncompliance which may endanger health or the environment, including:
 - (i) Any monitoring or other information which indicates that any contaminant may cause an endangerment to a USDW; or
 - (ii) Any noncompliance with a permit condition or malfunction of the injection system which may cause fluid migration into or between USDWs.

- (iii) Any information shall be provided orally within twenty-four (24) hours from the time the permittee becomes aware of the circumstances. 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, 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.
- (e) Other Noncompliance. The permittee shall report all instances of noncompliance not reported at the time monitoring reports are submitted. The reports shall contain the information listed in Part II, Section E, Item 12(d)(2) above.
- (f) Other Information. When the permittee becomes aware that he failed to submit any relevant facts in the permit application or submitted incorrect information in a permit application or in any report to the Director, the permittee shall promptly submit such facts or information.

SECTION F. PLUGGING AND ABANDONMENT

1. Notice of Plugging and Abandonment

The permittee shall notify the Director no later than forty-five (45) days before conversion or abandonment of the well. The Director may allow a shorter notice period upon written request.

2. Plugging and Abandonment

The permittee shall plug and abandon the well consistent with 40 C.F.R. §146.10, as provided for in the plugging and abandonment plan incorporated as part of this permit. Plugging and abandonment shall be completed to ensure that fluids are not allowed to move either into a USDW or from one USDW to another.

Revisions to the Plugging and Abandonment Plan must be submitted to the Director no less than forty-five (45) days prior to the plugging and abandonment. The Director must approve the revision prior to the start of plugging operations.

Within sixty (60) days after plugging the well, or at the time of the next quarterly report (whichever is less), the owner or operator shall submit a report to the Director. If the quarterly report is due less than fifteen (15) days before completion of plugging, then the report shall be submitted within sixty (60) days. The report shall be certified as accurate by the person who performed the plugging operation. Such report shall consist of either:

- (a) A statement that the well was plugged in accordance with the plan previously submitted to the Director; or
- (b) If the actual plugging differed from the approved plan, a statement defining the actual plugging and why the Director should approve such deviation. Any deviation from a previously approved plan may be cause for the Director to require the owner or operator to replug the well or pursue enforcement action.

3. Inactive Wells

If at any time there is no injection into a well for a period of at least two (2) consecutive years, the permittee shall plug and abandon the well in accordance with the plan unless he:

- (a) Provides notice to the Director including a demonstration that the well will be used in the future; and
- (b) Describe actions or procedures, which are deemed satisfactory by the Director, which the permittee will take to ensure that the well will not endanger USDWs during the period of inactivity. These actions and procedures may include, but are not limited to, a demonstration of mechanical integrity and shall include compliance with the technical and reporting requirements applicable to active injection wells unless waived, in writing, by the Director.

SECTION G. MECHANICAL INTEGRITY

1. Standards

The owner or operator of a Class I, II, III or V well permitted under this part shall establish, prior to commencing injection or on a schedule determined by the Director, and thereafter maintain mechanical integrity as defined in 40 C.F.R. §146.8. The Director may require by written notice that the owner or operator comply with a schedule describing when mechanical integrity demonstrations shall be made.

2. Prohibition Without Demonstration

The permittee shall not commence or continue injection activity after the effective date of this permit unless the permittee has demonstrated that the well covered by this permit has mechanical integrity in accordance with 40 C.F.R. §146.8 and the permittee has received written notice from the Director that such demonstration is satisfactory.

3. Subsequent Mechanical Integrity Demonstrations

A demonstration of mechanical integrity in accordance with 40 C.F.R. §146.8 shall be made no later than five (5) years from the date of the last approved demonstration. Mechanical integrity shall also be demonstrated at any time the tubing is removed from the well, the packer is reset, or a loss of mechanical integrity becomes evident during operation. Furthermore, the Director may by written notice require the permittee to demonstrate mechanical integrity at any time. The permittee shall notify the Director of his intent to demonstrate mechanical integrity at least thirty (30) days prior to such demonstration. The Director may allow a shorter time period if it would be sufficient to enable the EPA to adequately respond. The permittee shall report the results of a mechanical integrity demonstration within ninety (90) days after completion and in accordance with Part II, Section E, Item 11.

4. Loss of Mechanical Integrity

When the Director determines that a Class I, II, III or V well lacks mechanical integrity pursuant to 40 C.F.R. §146.8, he shall give written notice of his determination to the owner or operator. Unless the Director requires immediate cessation, the owner or operator shall cease injection into the well within forty-eight (48) hours of receipt of the Director's determination. The Director may allow plugging of the well pursuant to the requirements of 40 C.F.R. §146.10 or require the permittee to perform such additional construction, operation, monitoring, reporting and corrective action as is necessary to prevent the movement of fluid into or between USDWs, caused by the lack of mechanical integrity. The owner or operator may resume injection upon written notification from the Director that the owner or operator has demonstrated mechanical integrity pursuant to 40 C.F.R. §146.8. The Director may allow the owner or operator of a well which lacks mechanical integrity pursuant to 40 C.F.R. §146.8(a)(1) to continue or resume injection, if the owner or operator has made a satisfactory demonstration that there is no movement of fluid into or between USDWs.

5. Test Methods to be Used for Mechanical Integrity Test (MIT)

A plan for logging and testing the well for mechanical integrity shall be prepared and submitted for the Director's approval at least sixty (60) days prior to each proposed MIT demonstration date. The Director may allow a shorter time period if it would be sufficient to enable the EPA to adequately respond.

The plan shall propose logs and tests specified in 40 C.F.R. §146.8 (as amended from time to time by the EPA to include additional approved logs and tests, as published in the Federal Register). The plan shall also propose standards that will be used for evaluating the results of logging and testing. Mechanical integrity will be confirmed if the well logs and test data meet or exceed the standards approved as a result of the Director's review of the plan.

SECTION H. FINANCIAL RESPONSIBILITY

1. Financial Responsibility

The permittee, including the transferor of a permit, is required to demonstrate and maintain financial responsibility and resources to close, plug, and abandon the underground injection operation in a manner prescribed by the Director until:

- (a) The well has been plugged and abandoned in accordance with an approved plugging and abandonment plan pursuant to 40 C.F.R. §§144.51(o) and 146.10, a plugging and abandonment report has been submitted pursuant to 40 C.F.R. §144.51(p); or
- (b) The well has been converted in compliance with the requirements of 40 C.F.R. §144.51(n); or
- (c) The transferor of a permit has received notice from the Director that the owner or operator receiving transfer of the permit, the new permittee, has demonstrated financial responsibility for the well.

The permittee shall show evidence of such financial responsibility to the Director by the submission of a surety bond, or other adequate assurance, such as a financial statement or other materials acceptable to the Director. The Director may, on a periodic basis, require the holder of a lifetime permit to submit a revised estimate of the resources needed to plug and abandon the well revised to reflect inflation of such costs, and a revised demonstration of financial responsibility, if necessary. The owner or operator of a well injecting hazardous waste must comply with the financial responsibility requirements of section F of this part.

2. Insolvency

In the event of:

- (a) The bankruptcy of the trustee or issuing institution of the financial mechanism, or
- (b) Suspension or revocation of the authority of the trustee institution to act as trustee, or
- (c) The issuing institution's losing its authority to issue such an instrument, the permittee must notify the Director, within ten (10) business days of the permittee's receiving notice of such event. The owner or operator must establish other financial assurance or liability coverage acceptable to the Director, within sixty (60) days after such an event.

An owner or operator must also notify the Director 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) business days after commencement of the proceeding. A guarantor of a corporate guarantee must make such a notification if he is named as debtor, as required under the terms of the guarantee.

An owner or operator who obtains a letter of credit, surety bond or insurance policy will be deemed to be without the required financial assurance or liability coverage in the event of bankruptcy, insolvency, or a suspension or revocation of the license or charter of the issuing institution. The owner or operator must establish other financial assurance or liability coverage within sixty (60) days after such an event.

SECTION I. DEFINITIONS

All terms used in this permit, not specifically defined in the permit, are defined at 40 C.F.R. Parts 144, 145, 146 and 147.

PART III. ADDITIONAL ACTIONS

SECTION A. PRESSURE TESTING

If necessary, under 40 C.F.R. §146.22 (g) a formation test may be conducted to determine the maximum injection pressure for the injection well (i.e. mini frac well stimulation or a step-rate test). If a mini frac well stimulation is conducted on the proposed injection well, ensure that this stimulation is conducted independently of any other well completion activities (no proppant may be used) being conducted on the proposed injection well and the data-set submitted is complete (i.e. graph and data log of time and pressure).

The owner/operator must receive approval prior to conducting the test on the permitted well. Data from appropriately performed tests on nearby wells in the same formation may be submitted for technical review in lieu of data from the permitted well.

The permittee must submit a written request for modification with all appropriate data. Should a request for a pressure increase based on an approved step-rate test performed on this well be submitted, modification of this permit will be considered a minor modification per 40 C.F.R. §144.41. Requests based on all other test results shall be considered major modifications.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY - REGION 4

Statement of Basis

For

U.S. EPA Underground Injection Control (UIC) Draft Permit Number KYI1048
Public Notice Number KY17UIC002 Beginning December 23, 2016

For

Ogenoco, LLC
16376 Middlebelt Road
Livonia, Michigan 48154

For

The conversion, operation, plugging and abandonment of the
Tracy McCoy #1

Located in:

Turlow Project Oil Field
Green County, Kentucky
Latitude & Longitude
37° 13' 4.5" North & 85° 34' 4.9" West

On January 8, 2016, Ogenoco, LLC submitted a UIC permit application and requested a permit for the conversion, operation, plugging and abandonment of the above mentioned well. This application and its subsequent amendments have been reviewed by the EPA Region 4 staff and were deemed complete on November 14, 2016.

Under the authority of Title 40 of the Code of Federal Regulations at (40 C.F.R.) Parts 144 and 146, EPA permits must specify conditions for construction, operation, monitoring, reporting, plugging and abandonment of injection wells so as to prevent the movement of fluids into any underground sources of drinking water (USDWs). General provisions for EPA UIC permit requirements are found at 40 C.F.R. Parts 144 and 146, while regulations specific to Kentucky injection operations are found at 40 C.F.R. Part 147, Subpart S. In addition, permit conditions specific to this well are as follows.

Area of Review (AoR) and Corrective Action: In accordance with 40 C.F.R. §§144.55, 146.6 and 146.7, this is the area surrounding the well or project which the applicant must research, examine and develop a program to address, with a corrective action plan, wells which penetrate the injection zones that are improperly sealed, completed or abandoned and may therefore provide a conduit for fluid migration. The applicant has provided documentation on the well population within one-quarter mile of the injection well (i.e., AoR) indicating that the wells located within this area were properly constructed.

Underground Sources of Drinking Water: USDWs are defined by the UIC regulations as aquifers or portions thereof which contain less than 10,000 parts per million of total dissolved solids and which are being or could be used as a source of drinking water. The lowermost possible USDW has been identified at approximately 224 feet below land surface. The geologic name of this fresh water-bearing zone is the Fort Payne Formation.

Injection and Confining Zones: Injection of fluids for disposal is limited by the permit to the Knox Dolomite within an open hole interval between 1,748 and 2,026 feet below land surface. This injection zone is separated from the lowermost USDW by the following confining zones comprised of dense limestone known as the Lexington Limestone (also known as the Sunnybrook Limestone) (~340 feet thick), the High Bridge Group Limestone (~220 feet thick) and the Murfreesboro Limestone (~290 feet thick).

Construction Requirements: The construction of the injection well meets the regulatory criteria of 40 C.F.R. §146.22 which requires: that all new Class II wells be sited so that they inject into a formation which is separated from any USDW by a confining zone free of known open faults or fractures within the AoR; and that all Class II wells be cased and cemented to prevent the movement of fluids into or between any USDWs.

Injection Fluid: The injected fluid is limited to fluids brought to the surface in connection with conventional oil and natural gas production from the permittee's operations in the Turlow Project Oil Field. The origin of the injection fluid is from the operator's production wells in the coniferous formations. The expected maximum daily volume of fluid to be injected is 750 barrels.

Maximum Injection Pressure: The maximum allowable wellhead injection pressure for the proposed operation will be 325 psig. This limitation will ensure that the pressure during injection does not initiate new fractures or propagate existing fractures in the confining zones adjacent to the lowermost USDW. This in turn ensures that the injection pressure will not cause the movement of injection or formation fluids into any USDWs, as required at 40 C.F.R. §146.23.

Monitoring and Reporting Requirements: In accordance with 40 C.F.R. §§144.54 and 146.23, the applicant will be responsible for monitoring injection pressure, annulus pressure and flow rate on a weekly basis, cumulative volume on a monthly basis, and reporting monitoring results to the EPA on an annual basis. The applicant is also required to conduct and pass a two-part mechanical integrity test (MIT), in accordance with 40 C.F.R. §146.8, once after the well is complete and once every five years thereafter. These tests will provide the EPA with an evaluation of the integrity of the tubular goods (casing, tubing and packer) as well as documentation as to the absence of fluid movement behind the cemented casing.

Plugging and Abandonment: In accordance with 40 C.F.R. §§146.10 and 146.24(d), the permit includes a plugging and abandonment plan that will result in environmentally protective well closure at the time of cessation of operations. The applicant has also made a demonstration of financial responsibility, in accordance with 40 C.F.R. §§144.52(a) and 146.24(a), which ensures that adequate resources will be available for well closure and will preclude the possibility of abandonment without proper plugging.

Expiration Date: In accordance with 40 C.F.R. §144.36, the permit will be in effect for the life of the well or project, unless it is otherwise modified, revoked and reissued, or terminated as provided at 40 C.F.R. §§144.39, 144.40 and 144.41. The permit will be reviewed by the EPA at least once every five (5) years from the effective date for consistency with federal regulations.

Additional Information: The public comment period on this permitting action (Public Notice Number KY16UIC001) will close thirty (30) days after the date of the public notice (December 23, 2016). Questions, comments and requests for additional information or for a public hearing may be directed to the contact person listed below. If the EPA receives written comments of substantial public interest concerning a hearing on this action, a public notice of this hearing will be published locally and mailed to interested parties.

ATTN: Mr. Jason B. Meadows
Ground Water and UIC Section
Grants and Drinking Water Protection Branch (GDWPB)
U.S. Environmental Protection Agency, Region 4,
Atlanta Federal Center – Mail Code: 9T25
61 Forsyth Street SW
Atlanta, Georgia 30303-8960