PUBLIC NOTICE

U.S. Environmental Protection Agency, Region 4
Water Protection Division – Grants and Drinking Water Protection Branch
61 Forsyth Street, SW, MC 9T25
Atlanta, Georgia 30303-8960

Public Notice No. KY17UIC003 DATE: January 17, 2017

NOTICE OF PROPOSED ISSUANCE OF UNDERGROUND INJECTION CONTROL PERMIT for Class 5 Coal Slurry Injection Well Permit Number KYV0072

The U.S. Environmental Protection Agency, Region 4 intends to issue an Underground Injection Control (UIC) permit under the authority of Title 40 Code of Federal Regulations (C.F.R.) §144.39 to:

KenAmerican Resources, Inc.
P.O. Box 341
Bremen, Kentucky 42325

with the center of the project at

Latitude N37° 19’ 20”
Longitude W87° 11’ 46”

The proposed Class 5 permit will authorize the injection of coal slurry, which is a combination of coal mining reject material (coal, pyrite, rock) and water, into the sealed and abandoned portions of KenAmerican Resources Inc.’s Paradise Mine, Western KY #9 Coal Seam. This site is located approximately four and half miles northwest of Central City, Kentucky in Muhlenberg County.

The permit will include construction and operation parameters, monitoring and sampling parameters, financial responsibility to plug and abandon the wells, and an EPA-approved plugging and abandonment procedure. The permit will authorize four (4) Class 5 coal slurry injection wells.

Analysis shows that the coal slurry decant injectate is below the standards established by the EPA National Primary Drinking Water Regulations. During injection, the coal slurry decant will be analyzed on an annual basis. Samples taken from monitoring wells will be analyzed on a quarterly basis. The monitoring wells are located in aquifers that are above and below the slurry injection area. If any monitoring well or the coal slurry decant samples are above the EPA National Primary Drinking Water Regulations, the injection operation will be shut down and not allowed to restart until the coal slurry decant and/or the monitoring well samples are below the EPA National Primary Drinking Water Regulations. Domestic water wells will be analyzed quarterly to determine if the injection operation is affecting them. The construction, operation, and closure and abandonment requirements ensure that the injection wells will not contaminate underground sources of drinking water during operations and after injection has ceased. Fly ash is prohibited from injection.

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 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 U.S. Environmental Protection Agency, Water Protection Division, Grants and Drinking Water Protection Branch, Ground Water & UIC Section, 61 Forsyth Street, S.W., MC9T25, Atlanta, Georgia 30303-8960, ATTENTION: Robert Olive. 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 submitted 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, 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 his/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 his/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 his/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 Bill 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 Robert Olive of the Ground Water and UIC Section at (404) 562-9423. 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 preceding information to the attention of anyone who may be interested in this matter.

U.S. ENVIRONMENTAL PROTECTION AGENCY
UNDERGROUND INJECTION CONTROL PERMIT
AUTHORIZATION TO OPERATE CLASS 5 INJECTION WELLS
EPA UIC PERMIT NUMBER KYV0072

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

KenAmerican Resources, LLC
P.O. Box 341
Bremen, Kentucky 42325

is hereby authorized to construct, operate, and plug and abandon four (4) Class 5 injection wells at:

Paradise Coal Mine
Western Kentucky #9 Coal Seam
Muhlenberg County, Kentucky

Approximate center of project at
Latitude N37° 19’ 20”
Longitude W87° 11’ 46”

This authorization is in accordance with the limitations, monitoring requirements and other conditions as set forth herein. This permit consists of this cover sheet; Part I, 9 pages and Part II, 13 pages.

All references to Title 40 of the Code of Federal Regulations are to regulations that are in effect on the date that this permit becomes effective.

This permit shall become effective on: _____.

This permit and the authorization to inject shall remain in full force and effect for five (5) years after the effective date unless otherwise modified, revoked and reissued, terminated or a minor modification is made as provided in 40 C.F.R. §§144.39, 144.40 and 144.41.

Permit Expiration Date _____.

_____
Date

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

PART 1

WELL SPECIFIC CONDITIONS

SECTION A. AREA AND WELLS AUTHORIZED

1. Area Within Which Underground Injections are Authorized

The permittee is authorized to construct, operate and plug and abandon four (4) Class 5 coal slurry injection wells in the abandoned works of the KenAmerican Resources, LLC, Paradise Coal Mine, Western Kentucky #9 Coal Seam in Muhlenberg County, Kentucky. This project area is delineated in the UIC Permit Application as map titled: Enlarged Slurry Injection Site Plan.

Latitude N37° 19’ 20”
Longitude W87° 11’ 46”

2. Specific Wells Authorized for Construction and Operation

The following wells are specifically authorized by this permit for construction and operation within the permitted area:

Four (4) coal slurry injection wells are approximately located on the application map titled Enlarged Slurry Injection Site Plan. The injection wells are designated INJ-1 through INJ-4. These coal slurry injection wells inject through the floor of the active Paradise mine works in the #11 seam into the sealed abandoned (works) of the Paradise Mine #9 Seam. Specific well locations will be provided to the EPA before drilling.

Injection Well Designation	**EPA ID Number**
INJ-1	KYV1770207
INJ-2	KYV1770211
INJ-3	KYV1770212
INJ-4	KYV1770213

3. Construction of Additional Injection Wells

The permittee is authorized to construct, convert, operate, and plug and abandon additional coal slurry injection wells within the permitted area provided:

(a) The permittee notifies the Director sixty (60) days, or less if approved by the Director, before construction or conversion is scheduled to begin; and

(b) The permittee submits, with their notification to construct or convert, all information required under 40 C.F.R. Part 146 to demonstrate how the additional well will meet the construction, operating, monitoring, reporting, and plugging and abandonment requirements of this permit; and

(c) The permittee, to the satisfaction of the Director, demonstrates that the cumulative impacts of drilling or operating the additional well will not result in the movement of the slurry beyond the permitted disposal area; and

(d) The permittee obtains approval from the Director before beginning construction or conversion.

If the Director determines that any additional well constructed or converted pursuant to this section does not satisfy the requirements listed in (a) through (d) above, the Director may modify this permit under 40 C.F.R. Part 144.39, terminate it under 40 C.F.R. 144.40, or take enforcement action.

SECTION B. CONSTRUCTION REQUIREMENTS

1. Injection Well Construction

Includes four (4) injection wells: INJ-1, INJ-2, INJ-3, and INJ-4.

The four injection wells will be drilled directionally from the active #11 coal seam into the abandoned workings of the underlying #9 coal seam. Positional surveys will be conducted to establish the correct placement of the hole. This hole will be large enough to accommodate appropriate sized casing that will be cemented into place and pressure tested.

2. Decant Water Withdrawal / Vent Well Construction

Includes two (2) decant water withdrawal wells: Dewater 1 and Dewater 2 and two (2) vent wells: Vent 1 and Vent 2.

Construction of the decant water withdrawal/vent wells will be completed by drilling a borehole large enough to accommodate a surface casing down to within 5 feet of the slurry area roof. The long string casing will be lowered into the borehole and cemented from landing point to surface. After cement has hardened, the borehole will be extended through the mine roof into the slurry area. Pump tubing will then be installed inside the decant well casing. Documentation of construction, cementing, and location of monitoring, vent, and decant withdrawal wells shall be provided to the EPA.

3. Monitoring Well Construction

Includes five (5) monitoring wells: Monitoring Well 1, Monitoring Well 2, Monitoring Well 3, Monitoring Well 4, and Monitoring Well 5.

Construction of the five (5) compliance monitoring wells will be constructed by drilling from the surface to competent rock. A surface casing will be placed and cemented. From the bottom of the surface casing a hole will be drilled to the appropriate monitoring zone. The casing will be placed with perforations to allow water from the zone of concern to enter the casing. Pea gravel will be place in the annulus at the perforations as part of the well completion. A one foot bentonite plug will be placed above the pea gravel and allowed to set overnight. Type A cement will then be used to cement the behind the casing from bottom of the well to the surface.

4. Water Level Monitoring Well Construction

Two (2) water level monitoring wells will be constructed by drilling from the surface to competent rock. A surface casing will be placed and cemented. From the bottom of the surface casing a hole will be drilled into the mine void (#9 seam). The casing shall be installed from the surface to the roof of the mine void. The casing will then be cemented with Class A cement from the bottom of the hole at the mine roof back to the surface.

5. Mechanical Integrity Testing

The permittee is required to conduct and pass a mechanical integrity test (MIT) in accordance with 40 C.F.R. §146.8 after the injection wells are completed and once every five years thereafter. The injection wells will be pressure tested to 220 pounds per square inch for one hour. A change of less than 10% in pressure will constitute a passing test. All MITs will be witnessed by EPA personnel or their representatives.

6. Witnessing

The MIT shall be witnessed by the EPA personnel or their representatives. To arrange witnessing for these procedures, contact Ms. Carol Chen at (404) 562-9415.

7. Commencing Injection

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

(a) Construction is completed 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 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 or her 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) Permittee has sampled and analyzed the injectate decant for antimony, arsenic, barium, beryllium, cadmium, chromium, copper, cyanide, lead, manganese, mercury, pH, selenium, specific gravity, thallium, and total dissolved solids.

(c) Permittee has sent analysis results to the EPA and has received approval from the EPA to inject.

(d) Permittee has conducted and passed a MIT.

(e) Permittee has posted with the EPA, in an acceptable form, a financial responsibility demonstration to plug and abandon the injection wells.

SECTION C. OPERATING REQUIREMENTS

1. Injection Operation

Beginning on the effective date and lasting through the term of this permit, the permittee is authorized to inject only a slurry of recycled fluids, make up water and a mixture of fine grained reject solids (coal, rock, clay particles and pyrite fines) from the processing of raw coal at the KenAmerican Preparation Facility for disposal operations under the following conditions.

(a) Injection Zone

Injection shall be limited to the abandoned works of the abandoned and sealed KenAmerican Paradise Coal Mine, Western Kentucky #9 Coal Seam. This coal seam is approximately 335 to 420 feet below the surrounding surface topography.

(b) Injection Operation

The coal slurry will be prepared at the KenAmerican Preparation Facility and pumped to injection wells by an abrasion resistant piping system. The injection slurry will be injected via gravity into the slurry area defined on the application map Slurry Injection Site Plan. As the solids settle out of the injected slurry, the decant water will be removed from the injection area via the decant withdrawal wells. Once the injection area fills with solids, then the slurry operation at the

injection well will be discontinued and the well will be plugged and abandoned in accordance with an EPA-approved plan. All of the slurry area is below drainage for the creeks in the area.

(c) Maximum Contaminant Level (MCLs)

The injectate decant shall not exceed any Primary Drinking Water Regulations listed in 40 C.F.R. Part 141 or other health based limits.

Coal combustion ash (fly ash) is specifically prohibited from being slurried and injected.

2. Loss of Mechanical Integrity During Operations

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

3. Loss of Injection Zone Integrity

The permittee shall cease injection if a loss of injection zone integrity becomes evident during operations. Injection operations shall not be resumed until the EPA has reviewed the injection operation and determined that injection zone integrity has been restored and continued injection will not result in contamination of USDWs.

SECTION D. MONITORING REQUIREMENTS

1. Sampling and Analysis Methods

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 D, Item 3(a). Test methods and procedures shall be as specified in 40 C.F.R. §136.3 or in 40 C.F.R. Part 261, Appendix III. When the analytical method for a particular parameter is not specified in either 40 C.F.R. §136.3 or in 40 C.F.R. Part 261, Appendix III, the permittee must obtain the Director's approval of the methods used to generate all monitoring data. Reports to be generated from monitoring data are specified in Part I, Section E.

2. Injection Operation Monitoring

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

Parameter	Monitoring Frequency
Injection Pressure (psig) at Wellhead	Weekly
Flow Rate of Injected Fluid	Weekly
Cumulative Volume of Injected Fluid	Weekly

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

3. Injection Fluid Analysis

The permittee shall conduct an injectate decant analysis prior to injection and annually thereafter. An analysis will also be required whenever changes are made to the injection fluid. An analysis must include:

(a) antimony, arsenic, barium, beryllium, cadmium, chromium, copper, cyanide, lead, manganese, mercury, pH, selenium, specific gravity, thallium, and total dissolved solids

(b) A list of all chemicals and their composition used for new flocculation. The list should indicate the brand name of the product and manufacturer.

4. Other Tests

(a) The permittee shall conduct additional analysis from fluid samples collected at five (5) ground water monitoring stations, identified on the application map titled Slurry Injection Site Plan. The first sampling event shall be three months after the effective date of this permit and every three months thereafter. These wells shall be analyzed for the same parameters as in Part 1, Section D, 3, (a) of this permit (antimony, arsenic, barium, beryllium, cadmium, chromium, copper, cyanide, lead, manganese, mercury, pH, selenium, specific gravity, thallium, and total dissolved solids) . Average baseline levels will be determined from two samples taken prior to injection. Results of the chemical analysis for all monitoring wells will be sent to EPA on a quarterly basis.

Compliance Monitoring Well	**Updip / Downdip**	**Depth of Well Relative to KY#9 Coal Seam**
Monitoring Well #1	Updip	Below coal
Monitoring Well #2	Updip	Above coal
Monitoring Well #3	Downdip	Below coal
Monitoring Well #4	Downdip	Above coal
Monitoring Well #5	Downdip	In coal seam

(b) Permittee will conduct quarterly sampling and analysis of water from three (3) domestic/private water wells located in or near the area of review as shown on application map titled, Enlarged Slurry Injection Site Plan. Sampling and analysis is to be conducted prior to injection, three months after the effective date of this permit, and quarterly thereafter. Sampling and analysis shall include the following parameters: alkalinity, acidity, chloride, fluoride, iron (dissolved), lead (dissolved), manganese (dissolved), nitrate, pH, phosphate, potassium, sodium, sulfate, total dissolved solids, water level. Average baseline levels will be determined from two samples per well taken prior to injection.

Domestic Well	**Site Number**	**Address**	**Well Description**
Kateria Barnes	85-031	3029 KY 81 Central City, KY 42330	Backup Drinking
Wade Capps	103-018	1957 KY 81 Central City, KY 42330	Drinking/Ag
James Earl Eaves	103-020-001	1855 KY 81 Central City, KY 42330	Drinking/Ag

5. Shutting Down Injection Operation

If any of the monitoring results from Part 1 Section D 3(a), Injection Fluid; Part 1 Section D 4(a), Compliance Monitoring Well; or Part 1 Section D 4(b), Domestic Monitoring Well exceed the MCL or established base-line levels, then additional monitoring will be implemented. Monthly monitoring will be implemented for only those parameters in exceedance of the average baseline unless the permittee is able to demonstrate to the EPA that the injection operation is not the source of the ground water pollution. Monthly monitoring will continue for six (6) months. At the end of the six (6) month period, the monthly results will be averaged. If this six (6) month average exceeds the average baseline, the permittee shall cease injection. After shutting down injection operations, the permittee will conduct a dye trace study to ascertain if the slurry injection operations impacted aquifers in the area. If the EPA Director determines that the injection operation is affecting aquifers in the area, the operation will remain idle until the issue is corrected.

SECTION E. REPORTING REQUIREMENTS

1. Reports on Well Tests and Workovers

Within thirty (30) days after completion of the activity, the permittee shall report to the Director the results of any tests other than those specified in Part I, Section B, Item 4.

2. Reporting of Monitoring Results

Monitoring results, as specified in Part I, Section D, Item 4, shall be reported every three (3) months and must be postmarked by the 15th day following each calendar quarter (January 15th, April 15th, July 15th, and October 15th). Monitoring results, as specified in Part I, Section D, Item 2, shall be reported on a yearly basis on EPA Form 7520-11 and must be postmarked by the 28th day of the effective anniversary date. Monitoring results, as specified in Part I, Section D, Item 3, shall be reported on a yearly basis.

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

U. S. Environmental Protection Agency, Region 4
Director, Water Protection Division
Grants and Drinking Water Protection Branch
Ground Water & UIC Section
61 Forsyth Street, S.W.
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 within the AoR of the permitted facility that will penetrate the injection zone. The permittee shall provide information on proposed construction (including location and quantities of cement), location and depth. This requirement applies to any construction activity regardless of ownership of the well. If the construction of the new well will not protect USDWs from contamination, the Director may terminate the permit under 40 C.F.R.§ 144.40(a)(3), if he or she determines that continued injection may endanger human health or the environment.

SECTION F. PLUGGING AND ABANDONMENT PLAN

Plugging and abandonment of the permitted injection well shall be in accordance with Part II, Section F of this permit and 40 C.F.R. §146.10. A Plugging and Abandonment Plan shall be submitted to the EPA 30 days before plugging of the injection well for review and approval by the EPA. EPA may decide to send an inspector to witness the plugging of the injection well. To arrange witnessing of the well plugging, contact Ms. Carol Chen at (404) 562-9415.

Plugging and abandonment (P&A) of the permitted injection, vent, and withdrawal wells will be by placing a continuous column of Class A cement from five (5) feet above the injection zone to approximately three (3) feet below existing surface inside the casing. After the cement hardens, the casing will be cut and removed approximately three (3) feet below existing surface.

Plugging of the injection wells is estimated to cost $4,00.00 per well and will require posting of a financial responsibility demonstration with the EPA prior to Public Notice and injection.

GENERAL PERMIT COMPLIANCE

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 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.

B. PERMIT ACTIONS

1. 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.

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.

D. CONFIDENTIALITY

In accordance with 40 C.F.R. Part 2, any information submitted to 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, 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.

E. DUTIES AND REQUIREMENTS

1. 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:

(1) The permittee has submitted a timely application which is a complete application for a new permit; and

(2) 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

(3) 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:

(1) Initiate enforcement action based upon the permit which has been continued;

(2) 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;

(3) Issue a new permit under 40 C.F.R. Part 124 with appropriate conditions; or

(4) 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 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:

(1) 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.

(2) For a partnership or sole proprietorship: by a general partner of the proprietor, respectively; or

(3) For a municipality, State, federal, or other public agency: by either a principal executive officer or ranking elected official; or

(4) A duly authorized representative.

(b) A person is a duly authorized representative only if:

(1) The authorization is made in writing by a person described above;

(2) 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

(3) 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.

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.

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.

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 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 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 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.

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 subpart 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.

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.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 4

Statement of Basis

for

U.S. EPA Underground Injection Control (UIC) Permit Number KYV0072

for

KenAmerican Resources, LLC
P.O. Box 341
Bremen, Kentucky 42325

for

the construction, operation, and plugging and abandonment of four (4) Class 5 coal slurry injection wells located in:

Paradise Coal Mine
Western Kentucky #9 Coal Seam
Muhlenberg County, Kentucky

with the center of the project at

Latitude N37° 19’ 20”
Longitude W87° 11’ 46”

On September 18, 2011, KenAmerican Resources, LLC (permittee) was issued a UIC Class 5 Coal-Slurry injection permit for four (4) injection wells. The four permitted wells were designed as typical vertical injection; drilled from the surface to abandoned portions of the mine. No wells were initially constructed. Later, KenAmerican decided that they wanted to modify the permit to allow for subsurface diagonally drilled wells. The wells would be drilled from an actively mined area to the inactive injection zone. This change in well construction requires a major permit modification.

Since a major permit modification would require public notice and retain the original permit application date of September 18, 2016, KenAmerican applied to EPA R4 on October 29, 2015 to request that EPA revoke the existing permit and reissue a new permit with the well construction modifications. The revocation would happen simultaneously with the issuance of the new permit. The new permit will still have to go to Public Notice, but the new permit will have the full five year permit period.

However, due to delays in the permit review, the permit expiration period of September 18, 2016 has been reached. Therefore, there is no reason for the "revoke and reissue" action. A new permit will be issued after the appropriate review process.

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

Basis of Issuance: The EPA has made a determination to issue the subject permit after completing a technical review of the application. The technical evaluation included a review of the following: chemical analysis of the injectate decant; maps of the abandoned works of the KenAmerican Resources, Inc. Paradise Mine; contour maps of the creeks surrounding the slurry area; a project location map which included the injection wells, dewatering wells, monitoring wells, and water supply wells; geological cross sections; monitoring plans; proposed injection and dewatering operations plans; and plugging and abandonment plans.

Injection Zone: Injection will take place in the abandoned and sealed workings of the Paradise Mine located approximately three miles northwest of Central City, KY in Muhlenberg County. The injection will occur portion of the mined out Western KY #9 Coal Seam, which is isolated by seals from the rest of the mine. Active mining took place at the Paradise mine from 1979 to 2008. Approximately 1,544 acres is proposed for the injection area for a storage volume of approximately 3,970 acre feet. This is based on an average mined out coal seam of 4 to 5 feet thick. At full capacity, the facility is expected to give 11 years of slurry storage. The injection zone is approximately 335 to 450 below land surface. The #9 coal seam dips to the northeast.

The project Area of Review (AoR) includes the proposed slurry injection area and a ¼ mile buffer surrounding the injection area. The entire injection zone is below the existing surface water drainage.

Oil & Gas Wells: There are no active oil or gas wells in the Area of Review. Two oil wells were inventoried within the Area of Review as indicated in the application Appendix H. One was never drilled and the other was drilled and plugged in 1971.

Faults: There are no known faults in the Area of Review.

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. Ten (10) domestic water wells have been inventoried within the area of review. Three (3) private wells have been included in the domestic well monitoring program. The Surficial Aquifer is the major freshwater aquifer in the region and is located approximately 120 to140 feet below the land surface. This surficial aquifer is well above the injection zone that is located 335 to 420 feet below land surface. Most residents in the area are supplied drinking

water by the Muhlenberg County Water District #3.

Confining Zone: The injection zone is overlain and underlain by confining units with low hydraulic conductivity and low transmissivity. Fluid pressure in the injection zone is designed to be insignificant. Therefore, there is very little likelihood that the injected fluid could leave the injection zone. The injection zone is confined laterally by coal barriers and by portals sealed under a plan approved by the United States Mine Safety and Health Administration.

Injection Fluid: The injected fluid is limited to a slurry of fresh water and mining reject material (a mixture of fine grained reject solids, raw coal, rock and clay particles, and pyrite fines). Chemical analysis of the decant (i.e. injected fluid) shows the fluid does not exceed National Primary Drinking Water Regulations. The pH is expected to range from 6.5 to 8.2 based on the coal that is being processed. Fly Ash is prohibited from injection.

Injection Pressure: Injection will be via gravity flow and no pressure will be applied.

Injection Operation: Permittee will inject only a slurry of recycled water, slurry pond make-up water and fine coal reject material from the processing of raw coal at the KenAmerican Preparation Plant. The coal slurry will be prepared at the preparation plant and pumped or gravity fed via piping to the injection wells. The slurry will be injected via gravity at the wellhead. All injection will be into downward slopping mine areas. Piping will run through an existing mine opening in the #11 coal seam and travel to the location of the directional injection wells. The injection wells will be directionally drilled from the active #11 seam to the abandoned #9 seam.

The flow rate will be approximately 800 gallons per minute with an average of 1,100,000 gallons per day. As the solids settle out of the slurry, the water portion (decant) will be withdrawn from the injection zone and recirculated in the preparation process as makeup water. The proposal includes four (4) injection wells, two (2) water recovery wells, two (2) vent wells and five (5) compliance monitoring wells. The proposed plan contains a shut-down scenario for injection system failure. The surface disposal operation will remain functional as a backup in case there is a problem with the injection wells. The injection zone is completely below surface water drainage.

Well Construction:

Injection Wells: Construction of the injection wells will be completed by directionally drilling a borehole from the active #11 seam into the abandoned #9 seam. Positional surveys will be conducted to establish the correct placement of the hole. This hole will be large enough to accommodate appropriate sized casing that will be cemented into place and pressure tested.

Injection Well Designation	EPA ID Number
INJ-1	KYV1770207
INJ-2	KYV1770211
INJ-3	KYV1770212
INJ-4	KYV1770213

Decant Withdrawal/Vent Wells: Construction of the decant water withdrawal/vent wells will be completed by drilling a borehole large enough to accommodate a surface casing down to consolidated rock. This surface casing will be cemented in with Class A cement. Then a large enough borehole will be drilled to within five (5) feet of the mine roof of the slurry area to accommodate a long string casing. The long string casing will be lowered into the borehole and cemented from landing point to surface. After cement has hardened, the borehole will be extended through the mine roof into the slurry area. Pump tubing will then be installed inside the well casing. Documentation of construction, cementing, and location of monitoring, vent, withdrawal wells shall be provided to the EPA.

Pressure Testing: The permittee is required to conduct and pass a mechanical integrity test (MIT) of the injection wells in accordance with 40 C.F.R. §146.8 after the injection wells are completed and once every five years thereafter. The injection wells will be pressure tested to 220 pounds per square inch for one hour. A change of less than 10% in pressure will constitute a passing test. Although the wellhead where the MIT will be conducted will be in the subsurface, all aspects of the MIT will be similar to a traditional MIT conducted at the surface. All pressure testing will be witnessed by EPA personnel or their representatives. To arrange witnessing of the pressure test, contact Ms. Chen at (404) 562-9415.

Monitoring and Reporting Requirements: In accordance with 40 C.F.R. §144.54, the applicant will be responsible for monitoring injection pressure, flow rate, and cumulative volume on a weekly basis and reporting monitoring results to the EPA on an annual basis. Upon issuance of the permit and thereafter annually, the operator will conduct a chemical analysis of the injectate decant and send the analysis results to the EPA.

The operator will monitor the groundwater quality using five (5) monitoring wells. Sampling is to be conducted quarterly and shall include the following parameters: antimony, arsenic, barium, beryllium, cadmium, chromium, copper, cyanide, lead, manganese, mercury, pH, selenium, specific gravity, thallium, and total dissolved solids. Results of the chemical analysis for all monitoring wells will be sent to the EPA on a quarterly basis.

Compliance Monitoring Well	Updip / Downdip	Position of Well Relative to KY#9 Coal Seam
Monitoring Well #1	Updip	Below coal
Monitoring Well #2	Updip	Above coal
Monitoring Well #3	Downdip	Below coal
Monitoring Well #4	Downdip	Above coal
Monitoring Well #5		In coal seam

Monitoring of Domestic Water Wells: Based on active well status, location, well construction, owner permission, etc.; three (3) domestic water supply wells have been selected for quarterly monitoring. The sampling and analysis will be conducted by the permittee. The analysis will include alkalinity, acidity, chloride, fluoride, iron (dissolved), lead (dissolved), manganese (dissolved), nitrate, pH, phosphate, potassium, sodium, sulfate, total dissolved solids, and water level. Average baseline levels will be determined from two samples per well taken prior to injection.

Domestic Well	**Description**	**Parcel ID**	**Address**
Kateria Barnes	DW backup	85-031	3029 KY 81
Wade Capps	DW and Ag	103-018	1957 KY 81
James Earl Eaves	DW and Ag	103-020-001	1855 KY 81

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.

Expiration Date: This permit and the authorization to inject shall remain in full force and effect for five years (5), unless it is otherwise modified, revoked and reissued, or terminated as provided in 40 C.F.R. §§144.39, 144.40 and 144.41. The permit will be reviewed by the EPA at least once every three (3) years from the effective date for consistency with federal regulations.

Financial Responsibility: No injection is allowed into any well under this permit until the owner/operator has posted with the EPA an acceptable financial responsibility demonstration to plug and abandon the subject injection well in a manner approved by the EPA. An acceptable financial instrument must be approved before the permit goes to public notice.

Additional Information: Questions, comments and requests for additional information or for a public hearing may be directed to the contact person listed below. The public comment period for this permitting action will close thirty (30) days after the date of the public notice. 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.

Mr. Robert Olive
U.S. EPA, Region 4, MC 9T25
Water Protection Division
Grants and Drinking Water Protection Branch
Ground Water & UIC Section
61 Forsyth Street, SW
Atlanta, Georgia 30303-8960
(404) 562-9423